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THE GREAT PROBLEMS

BY

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TRANSLATED BY

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NEW YORK
THE MACMILLAN COMPANY
1914

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Printed by BALLANTYNE, HANSON & Co.
at the Ballantyne Press, Edinburgh

This translation is authorised by Professor Varisco and by the Libreria Editrice Milanese, who are also the publishers of Professor Varisco's companion volume, "Conosci te stesso."

EDITOR'S NOTE

Bernardino Varisco, who is here for the first time introduced in translation to English readers, was born at Chiari (prov. of Brescia) in 1850. He is described by Ueberweg and Heinze as one of the most active speculative minds of our time,[1] and, for the object of the Library of Philosophy to include the most representative thinkers in different countries, no writer presented himself as more suitable to illustrate recent speculation in Italy.

His chief earlier works are *Scienza e opinioni*, Rome, 1901; *Le mie opinioni*, Pavia, 1903; *Introduzione alla filosofia naturale*, Rome, 1903; *Studi di filosofia naturale*, 1903; *La conoscenza*, Pavia, 1904; *Forza ed energia*, Pavia, 1904; *Paralipomeni alla conoscenza*, Pavia, 1905; *Dottrine e fatti*, Pavia, 1905. Subsequently to the present volume he has published *Conosci te stesso*, a translation of which will shortly appear in this Library.

The translation of *I massimi problemi* which is here offered is from the first edition, published in Milan 1910. But as Professor Varisco has rewritten Chapter II, on Sensation, for the new Italian edition which is about

[1] *Geschichte der Philosophie*, iv. p. 582.

to appear, and introduced considerable changes, chiefly by way of omission in the Appendices, the translator has been able, through the kindness of the Author in sending a copy of his manuscript, to bring his version up to date. The marginal headings of all the chapters, except the second, are those of the Author. The translator alone is responsible for the concluding heading in Chapter II.

AUTHOR'S PREFACE

So far as the conclusions of these investigations are positive, they can be summed up in the proposition that things and facts are ultimately determinate forms of one self-identical Being, which coincides with our concept of Being. Is there, then, nothing new?

Much is not new; but still something, not unimportant, has been attained. The writer has succeeded in developing the content and rendering precise the real meaning of the proposition mentioned, and it appears to him that the conclusions reached serve completely to exclude a number of questions which are unnecessary.

In the following pages the problem of Philosophy—for the "Great Problems" are ultimately one problem—is not solved. But it is formulated in such a way as to render it clearly intelligible. Without this the most ingenious attempts and most strenuous efforts serve only to divert us from the path.

ROME, *June* 1909.

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THE GREAT PROBLEMS

CHAPTER I

THE SEARCH AFTER TRUTH

I

THE world has value for us; it is the source of pleasures and pains, of life and death. But has it intrinsic value? Does nature tend towards an end? To this end, if end there be, can we in any way contribute? If so, how? What shall we say of the history of man? Will it one day end, leaving no more trace of itself than a bubble in water? Or is it directed towards an end? Does personality survive the body? Suppose it does: will its states in the future depend—and in what way and to what extent—on its conduct here? Suppose it does not survive: is it still possible—and if so, how—to assign a value to the individual life, in spite of the horrors with which fate threatens it and which it not rarely inflicts upon it? Is there or is there not, above things or in things, a Principle of wisdom and goodness which governs them? Propounding to ourselves these questions and others inseparably connected with them—the Great Problems—we seek a knowledge, a theory, which has a practical importance of the first order.

Philosophical problems and their practical importance.

Among the many things which we can do, there is also the search for knowledge. Man has more value

than the brute because he knows. Civilised man has more value than the savage because he possesses a culture. To intensify this culture, to extend and deepen it, and to develop an activity most precious and peculiarly our own, to form in ourselves a possibly adequate conception of things, of ourselves, and of our position among things, is the end to which culture is directed.

The opinion of some, that the sciences are only of use in so far as in their application they are materially beneficial to us, is a vulgar error. As the telegraph exists, it is natural for me to use it, and to be greatly annoyed if I am prevented from using it in case of need by the breaking of a wire. But a hundred years ago, when there was no idea of telegraphy, people did without it and never felt the want of it. Difficulties occurred which the telegraph might have removed, but *per contra* the telegraph, in rendering the relations among men closer, more extended, and more complex, has given rise to fresh inconveniences.

No one will deny that the material advantages obtained by means of knowledge are advantages. But to believe therefore that the value of the knowledge is measured by such material advantages is the height of folly. Is the stomach the servant of the heart, or the heart of the stomach? A foolish question—the heart and the stomach serve each other in turn, and both are of service to the life of the organism. Knowledge gains for us material advantages, and these in turn facilitate the acquirement of new knowledge. Theory and practice are mutually interdependent—together they constitute the life of man. To be truly and fully men—that is what matters.

Everyone lives in a determinate environment. Fate, or a choice now become irrevocable, assigns him a duty,

for the fulfilment of which there is no need to know the solution of the aforementioned problems. But the very concept of duty, which contributes so much to imprint on human activity its own peculiar characteristics, is not separate from the sequence of thoughts which gives rise to those problems. Man is not content, like the brute, to repeat constantly the same cycle of operations: he strives incessantly towards a "better." And how am I to know what is really better? How am I to know, not merely what is prescribed to me by my actual relations with other men and by the present state of intercourse, but in what direction I ought to strive to modify those relations and this state in order that the modifications may be an improvement—without reference to some general solution of those problems? Human society was and is always a field of battle. The strife is determined in great part—though not exclusively—by the differing solutions which are accepted of the Great Problems, or by the different ways in which we conceive the "better" which we desire to realise. To this day there are two opposing conceptions, standing in strong contrast to each other—the Christian and what we may call the Humanistic. The first of these makes the "better"—or rather, the absolute good—consist in an order, willed by God, which goes beyond the field of this life, and which each of us can himself realise in the beyond, provided that he fulfils here below the will of God. The subordination of terrestrial ends to those of the world beyond is essential to this conception. Whereas the other, the Humanistic, does not recognise or admit other than terrestrial ends, another life than the present, other duty than that laid down by the aspiration towards a "better," an aspiration which has a value of its own, and not as evidence of an unvarying good outside us.

II

Philosophy as unity of culture.

The strife between these two conceptions, while it lasts, is certainly the most vital of all that have been or are likely to be fought. Because of the two conceptions, only one can be true, and—neglecting for the moment the possible variants of each—one must be true. If opinions, and therefore laws and customs, were subjected more to the influence of the one which is not true, farewell to all hope of real improvement. Humanity, like an ill-educated child, would be on an evil path.

You will say that the danger is not to be feared, that truth, sooner or later, in spite of the obstacles, or rather by means of the obstacles, cannot but triumph by its own intrinsic force; that to take life seriously, to direct it efficaciously towards the "better," there is no need to lose oneself among the subtleties of philosophers; that philosophers are professedly all animated by a superlative zeal for humanity and always speak in the name of what is dearest and most living in our consciousness, but in practice can only build system on system without succeeding in reaching any agreement; that if humanity had to wait to be informed by them of what was really important—alas for poor humanity!

Such language is unintelligible. The triumph of truth consists in its being recognised.[1] Opponents speak as if philosophy were a sort of cabal which vainly pretended to discover the truth by certain mysterious artifices. Philosophy is in reality nothing but the name by which we designate the search and knowledge of the supreme truth. Either we may reason-

[1] And practised; but its recognition necessarily precedes its practice.

ably presume that the false conception will in the end be eliminated, and this is to admit that the true solutions of the Great Problems will finally be discovered, so that we shall reach the construction of a philosophical science; or else philosophical investigation is useless, and then the danger which our opponents accuse us of fearing without reason would become an inevitable and present loss. The two opposed conceptions will continue to struggle, modifying each other indefinitely; one, be it which it may, will perhaps prevail in the end. But this variation of opinions will be without advantage; for there is no advantage in a change of opinions which does not mark an approach towards the truth.

That philosophy has fulfilled none of its promises is untrue. Philosophical doctrines are not in the same state to-day as formerly. The constantly renewed discussion of the Great Problems has had the result, if no other, of presenting them in forms more precise and exact as they pass from hand to hand. Perhaps there is not yet a philosophical science; there are still unsettled controversies, but the chaos of opinions is gradually falling into order. Certain errors are no longer possible, and certain mile-stones mark with accuracy the way of truth. It is easy for one who understands nothing of philosophy to say that philosophers do not understand each other. In reality they do understand each other and make themselves understood by others, so as to exercise an efficacious and salutary influence on culture, and indirectly on practical life.

To insure the uninterrupted advance of man towards a "better" culture, divided into a number of departments of study—each of which arranges and groups the known truths of a given class—is not enough;—just as the truths of an uncultured man, if unsystematised, are

not enough, however numerous and important they may be. Disconnected truths, and those circumscribed groups of truths which are the various departments of study, form, so to speak, only the body of culture. The soul, without which the body is not alive or capable of action, without which, however many elements of culture there may be, there is no *one* culture,—the soul, which ought to co-ordinate the actions of the body, directing them to the supreme purpose, is constituted by the consciousness of the relations which the functions of the several parts of the body have with the supreme purpose. Culture cannot be organically unified, cannot assure us against fundamental errors which divert us from the true path, *i.e.* culture fails in its aim and falls back, as regards what is essential into barbarism,[1] so long as it is not strengthened, inspired, and invigorated by the solution of the Great Problems—*i.e.* by philosophy.

III

Preconceptions and the need of eliminating them.

If we can labour, and not in vain, at the construction of philosophy as a science, we owe it to the fact that culture has gone on developing, intensifying, and arranging itself by its own power. This has not taken place apart from philosophical inquiry; for it is evident that this constitutes by itself a noteworthy part of culture,[2] though apart from a philosophy already constructed and established as a science. This fact seems to contradict what we just now asserted; but the contradiction is only apparent.

[1] Nor would it matter much if the barbarism, instead of being rough, were refined and delicate—we may be dressed, clothed, fed, and amused like princes, and be worth nothing as men.

[2] A principal part, we may say, for without it the deepest and truest meaning of the other parts would have remained unperceived.

Certainly before man possesses a clear and explicit knowledge of the truth, he has a presentiment of it—a feeling, confused but living and on the whole not fallacious—which serves him as a guide along the road, by no means short or easy, which has so far been traversed. "See, then," say our opponents, "there is no such need of a scientific philosophy as you asserted; spare yourself the trouble; *fata viam invenient.*" That may be, but we may desire to shorten that way and also to render it more secure, for no one can deny that man has made many steps on it and many off it, not to speak of time spent in marking time. Things, being as they are the inheritance of culture, are to a great extent in the hands of chance. Who can say what would have happened, if the result of the battle of Platæa had been different, or if Hannibal had marched on Rome immediately after Cannæ?

We are gathering fruits ripened and accumulated little by little in the course of ages of struggling. Things have gone on the whole fairly well, though not entirely so. In the inheritance which has fallen to us, elements of suffering are not lacking, though history has been on the whole fairly favourable to us. But it might have been unfavourable; the destinies of humanity were more than once suspended by a thread, and woe to us if it had broken! It will be prudent for the future to trust a little less to the "fates" and to strive to be ourselves masters of our own destiny. It is time to transform into sure knowledge the feeling by which we have allowed ourselves to be guided somewhat blindly. The feeling is living but confused. It has led on the whole to good results; but it has also been subject to stupefactions and aberrations all but irreparable. These might—who knows?—be repeated and not meet again with favourable circumstances to

correct them. That we should trust ourselves to feeling when we had no other guide, and did not even see that we were abandoning ourselves to it, was natural; but that we should continue to trust ourselves to it after having recognised it for what it is—after the desire for a precise, clear, and scientifically certain knowledge has arisen and simply forced itself upon us—would no longer be reasonable. Let us try, then, to solve the Great Problems scientifically; then only shall we know where we are going, what we want, what we can, and what we ought to do. Let us construct our philosophy.

In saying that we must not trust ourselves to feeling, we do not imply that it is right to neglect it. The psychical fact of feeling may be the evidence of a reason, the manner in which a reason of which a subject has no knowledge, or at least no clear knowledge, authenticates itself to his consciousness. But it may also be that the value of that fact is very different from that which the subject in his ignorance attributes to it. For instance, one child is irritated by an injustice done him, another by a scolding which he has deserved. As observed facts, the two feelings will be very similar; but the first is reasonably justified, whereas the *raison d'être* of the second lies in a mental disposition which ought not to exist. The feeling of the divine is justified, as we shall see; yet not all the opinions based upon it—opinions which, in a man incapable of deep reflection, could have no other foundation—are justifiable.

Philosophy cannot eliminate an opinion for the reason that the sole justification adduced in its favour can be reduced to a feeling. The feeling might imply a reason not yet rendered explicit. But as its aim is to render full reason for everything,[1] philosophy

[1] Obviously, if anything remains for which no reason can be given, a general conception of things is not possible.

cannot admit at once as true an opinion whose sole justification can be reduced to feeling. It must, on the one hand, discuss the opinion, and, on the other, value the feeling and see if it implies a satisfying reason or not. It may be that the falsity of the opinion, recognised theoretically, may suffice to persuade us of the irrationality of the feeling; but it may also be that the validity of the feeling, recognised practically, may suffice to prove the truth of the opinion. Philosophy ought not to admit preconceptions of any sort.

The opinions which commonly exist with regard to the solutions of the Great Problems depend for the most part on preconceptions which deprive them of scientific value. I do not speak only of those who absorb their religion or irreligion ready-made from their environment as a sponge absorbs water, or of those who follow a party, under the impression that they have chosen it, but really because they find themselves herded with others in it. Again, many philosophers who have learning, intelligence, and industry, and can use these to advantage in the discussion of secondary questions, take, in face of the Great Problems, an attitude determined by the impression received from their general culture. But this impression has neither been analysed nor discussed, and therefore has value only through the feeling associated with it. And this is the true reason why a Christian philosopher and a humanist—the one presupposing Christianity and the other humanism—seem to have no common ground on which to fight the question out.

We propose to make clear what is known and nothing else, to the exclusion of what is believed[1] from motives which are not reasons. We propose, therefore, to exclude every preconception, every presupposition. Certainly it is one thing to say this, another to do it.

[1] There is an irreligious faith as well as a religious faith.

But, if we may fear other pitfalls, we feel ourselves secure from those which are the most dangerous in philosophy —those of feeling—for we do justice to feeling. We recognise that it may have reasons to make it valid; we demand, however, that, if it has any, it shall vindicate itself under the form of reason.

IV

Knowledge as a "given."

How are we to solve the Great Problems? We have opinions; we communicate them to one another and discuss them. That is something, and precisely that something in which consists our superiority over brute beasts. Certain opinions express in a collective form the results of a collective experience, for the most part natural, not intentional, which has, however, endured for centuries. Everyone receives these verified by his predecessors and hands them on, having verified them in his turn. It is not possible for them to be altogether illusory, nor to fail to correspond on the whole with reality.

Men of goodwill intentionally undertake research in fields not accessible to most men. To the consciousness of the end they unite an accurate study of the means. In addition to this they labour *together*. Each informs himself of the opinions of others, discusses them, and profits by them if occasion serves. Further, of the opinions so obtained, when they have been verified by all those who are capable of verifying them, it must be believed that they correspond to reality.

There is a popular knowledge and there are sciences. The aptitude for knowledge and the effective possession of many truths cannot reasonably be denied to man. Sceptical objections are unprofitable. It is no good supposing or taking for granted that our pretended

knowledge is resolvable into opinions with no other meaning and no other value than that of being our opinions. The sum total of these opinions, with the relations which connect them, and the distinctions by which some are called true and others false, some certain and others doubtful, remain the same. It is this which is called knowledge. You may prefer to call it by another name. Good. It is not the name that matters, but the thing, and as for the thing, there is no argument that can eliminate it, for every argument implies it, or rather belongs to it.

But of the many things of which we have knowledge, those which we must know to obtain the solution of the Great Problems are not found. I know, because I see it, that snow melts into water. I know that the earth is spherical, although I do not see it, because I deduce it necessarily from what I do see. But whether personality exists after the death of the body or not, I have never been able to learn for certain by observation, nor yet so far by the path of sure reasoning.

Naturally we cannot count among known truths those solutions of the Great Problems which are contained in a religion—in particular, in the Christian religion—or in a philosophy. Among these solutions some are without doubt true. For instance, either personality endures after the death of the body, as Christians assert, or it does not, as others maintain. One of these two assertions is certainly true and the other false. But we cannot yet consider either as a known truth. In fact, we seek to learn which is true, or, if nothing else, we seek the reasons by which that affirmation which we know to be true must be justified and proved. Now, if we seek, we do not presuppose knowledge. Explicitly we do not know. Either we do not know which of the two affirmations is true, or

we do not know the reasons which make it true.[1] In any case, we cannot assume as known an affirmation which by the very fact of our investigation we recognise as doubtful or as not proved. The only truths which it is lawful to assume—which for our investigation have the value of acquired truths—are those which form common knowledge and the several sciences. Philosophy in its loftiest signification lies outside this sphere, and we propose to construct it now.

V

These truths are certainly capable of unlimited increase; to suppose they have an impassable limit is nonsense.

Insufficiency of the common truths and of the scientific truths, however increased.

Let us imagine that a point M, starting from A, moves with uniform motion in a straight line A X. There will never come a time in which M will have entirely traversed the straight line; but on the other hand, it is not possible to mark a point L on it which M can never pass. The continual acquisition of new truths by man can be compared with this motion. Man will never arrive at knowing everything; but on the other hand, there is nothing of which we can assert that man will never reach the knowledge of it.

Granted that the point M passes in the end every assignable point in the straight line, nevertheless it never moves except on this—every external point is inaccessible to it. So we can say the truths which constitute common knowledge and science, *i.e.* positive truths, however much they may multiply and

[1] Whoever holds that there is no distinction between these two ignorances deceives himself, but we cannot stop here to discuss his error.

extend without limit, will always remain of the same positive nature. They will never give us the solution of the Great Problems, which consequently will remain for ever unsolved. We shall be able to form for ourselves, as we have done hitherto, opinions more or less probable, such as to satisfy easily-contented minds, but not to arrive at scientific knowledge. For example, God lives in the sky. This was believed for a time, and many still believe it. We may examine the sky with telescopes many thousand times more powerful than ours or with other means at present inconceivable. It is quite certain that we shall not discover God. And it is no less certain that our not discovering Him can be no proof of His non-existence.

Certain doctrines which form part of a religion, certain stories connected with it, can be tested by positive knowledge. In this way it would appear a religion can be proved false. But as regards Christianity, and even Catholicism, such a criticism leads us no further. A means of eliminating the contradictions between positive knowledge and what is matter of faith can always be found. The Copernican hypothesis, for instance, appeared irreconcilable with the truth of Scripture and was consequently condemned. That hypothesis to-day is beyond question; but in spite of that there is no Catholic who considers that in admitting it he does the least violence to his faith.

Those to whom the existence of religions is displeasing must resign themselves. Religion may lack an intrinsic reason; but it is not proved to lack it, nor can it be proved by a contradiction, however striking, between positive knowledge and certain affirmations, dogmatic or historical, accepted as true for a time by the followers of the religion. The essence of the religion consists in its being a solution of the Great Problems. All

that can be modified without trenching upon the solution is modified under the pressure of culture, and ends by no longer belonging to the body of religious doctrines. So an organism does not lose the unity of its constitution, although it abandons the elements which are no longer living, which really no longer belong to it and would do harm if they remained united to it.

But cannot culture and positive knowledge compel religion to even deeper transformations, to change its very essence, to substitute another for it, or to destroy it? Certainly they can; and they have done so, more than once. Fetishism, for instance, is only compatible with a very rudimentary culture. But we must convince ourselves of one thing: Culture realises these results, not as an aggregate of particular positive truths, no matter of what kind or how numerous, but in virtue of its philosophic mind. Philosophy is implicit in culture, and succeeds, though not directly, in informing consciousness; or, if we prefer to say so, in informing culture as a synthesis and as an organic unity —this is the force that detaches the cultured consciousness from an irrational religion.

Nevertheless, as we have noted, we can only trust implicit philosophy up to a certain point. He who says "implicit philosophy," says "general impression not analysed or discussed"—in a word, "feeling." And a feeling, however respectable, may be irrational and cannot be interpreted as a duty. A religion is false in so far as it is an untrue solution of the Great Problems —to eliminate it with certainty we must find their true solution. We must render explicit that philosophy which in culture is only implicit; we must construct the true philosophy.

The same question always presents itself to us: How are we to construct philosophy if positive know-

ledge, if culture, no matter how broad and deep, can tell us nothing of those things which we must know in order to possess philosophy?

VI

We must solve this difficulty or recognise that the Great Problems are insoluble. And this question presented itself at first in a problematic form: is philosophy possible? The doubt seemed justified by the experience of centuries. Among the authors of so many systems some were superior to the bulk of mankind through unwearied activity, learning, and ability. If, however, no system can resist criticism, must not the fault be referred to the intrinsic impossibility of solving the problems proposed rather than to the authors, or to some carelessness on their part or mistake that can be repaired? Here is a point to be cleared up if we do not wish to expose ourselves to the risk of for ever making attempts destined to remain fruitless.

How the Great Problems are solved. Study of knowledge; criticism; the unknowable.

In some such way arose the idea of premising a *criticism of consciousness* to philosophy properly so called. Are there limits to our power of knowing? It would seem so, since no one would dare to boast that he knew everything or was infallible. What, then, are these limits? It was not difficult to realise that the field of things we can know coincides with that of those which we can experience. For those of our truths which are not derived from experience—mathematical truths, for instance—still concern the forms of experience, and in a field which is not that of experience have no applicability or meaning. In short, we have positive truths, and can procure others without limit, but we cannot pass beyond the field of positive knowledge.

Wishing to solve a problem, we must of necessity base ourselves upon known truths, and the known truths upon which we can base ourselves are positive. For, in fact, we possess no others—at least, not until we have constructed the philosophy which has not yet been constructed. But from positive truths none but positive truths can be derived. Therefore the solution of the Great Problems, the construction of a knowledge going beyond positive knowledge, is impossible. Therefore philosophy can be nothing but the systematisation of positive knowledge; to advance further is not granted to man; to endeavour, when climbing a ladder, to get higher than the top of the ladder, is madness.

In the doctrine in view something at once strikes us by its incongruity. Let us leave undiscussed for the moment the question whether the impossibility of passing beyond positive knowledge has been fully proved. Let us assume it proved. We ask how, when we cannot know anything beyond, we can ever assert that there is a "beyond" which is in the nature of things unknowable. For with the assertion that the "beyond" is unknowable comes the affirmation that it exists. Now, a "beyond" of which we know the existence, is not an absolutely unknown thing—is not unknowable. To reply that we know nothing of the "beyond" except that it exists, is simply to multiply errors. For in order to call the knowing nothing of the "beyond" except its existence, *not knowing* it,[1] we should have to know also that existence is not the only characteristic of the "beyond." It is not possible for a thing to possess no characteristic except that of existence. For things which we experience this is granted, but with what right can we extend this principle to that of which the assertion is made,

[1] At the most, we could only say, not knowing it completely—but enough of that.

that we can either know nothing at all or only the fact of its existence?

From the premise that all our knowledge is limited to things which we can experience, we desire logically one conclusion only: that things which we can experience exist; that there are no things which we cannot experience. For the assertion that something which we cannot experience exists, necessarily implies that our knowledge extends beyond what we can experience. And not only the assertion, but the mere supposition implies this. A supposition, to be anything more than sheer folly, must obviously be justified by knowledge. But knowledge, limited to things capable of being experienced, never authorises us to risk a supposition, however vague, about anything outside these.

VII

A serious error in the doctrine referred to, is that of considering itself as the recognition of a limit to the power of knowing; whereas we conclude that the power of knowing has no limits. It extends, in fact, over the world of possible experience—*i.e.* if we do not wish to contradict ourselves, over the world of existence. Then the Great Problems are certainly capable of solution; positively or negatively, they can certainly be solved.

Criticism continued; its vicious circle.

Men, after having believed and believed and believed, and after having found themselves always without exception deceived, have become distrustful and pay no further heed to one who talks of truth. This distrust, which is far from groundless, has become so exaggerated that it has passed into its own opposite and become a blind credulity. After someone had said it, all men like sheep go on repeating it. "Human reason is limited.

Certain problems will remain for ever insoluble." Nobody looks to see if the assertion has any meaning. It appears moderate, and nothing more is needed to make them remain contented with it. They do not reflect that the moderation of the statement is only apparent. Reason, finite according to Titius, is unlimited according to Sempronius. The same problems which Titius calls insoluble Sempronius says can be solved. To make the assertions, as they do, both Titius and Sempronius ought to be convinced that they have rendered to themselves a clear and exact account of the Great Problems. Good. We praise the moderation of Titius, and we blame the presumption of Sempronius. Yet Titius presumes just as much as Sempronius. Where is our common sense?

We may not speak of the power of knowing without making distinctions. Our opponents also make distinctions; for, while they admit the possibility of knowing all that is subject to experience, they also admit that each of us, however long he lives, can never know more than a minute fraction of the same. We make the same distinction. We admit the possibility of knowing everything, and we admit also that no one ever possesses more than a minute fraction of possible knowledge, and that not free from error. The impossibility, in fact—practical, not theoretical—which I experience, of knowing everything and escaping error, depends not on my power of knowing but on my being a finite man living in finite circumstances (of time, place, &c.).

Some distrust of what appears to us to be true is justified, because each of us possesses but a limited knowledge and a limited aptitude for profiting by it. In spite of my efforts to arrive at truth, the gaps in my knowledge, especially those I do not perceive, and the erroneous opinions bound up with it, are obstacles which

may mislead me. Besides, are my efforts really directed solely by my desire to reach the truth? May it not be that the serenity of my work is disturbed, without my perceiving it, by desires of another kind? That, for example, false shame prevents me from recognising an error? Again, in working, I grow tired—perhaps less than another, but still I grow tired. My writing at a given moment becomes odious to me: I long to escape from it. If I could have exercised more control over my weariness, or if I had never been compelled to make haste by circumstances imperious though external to me, I should perhaps have done better. Smile who will, there is little to smile at. He who believes himself superior to these weaknesses, may enjoy the illusion of being something great; but his value is less than his who has no such illusion. He is no sincere lover of truth who does not recognise that his forces, however great, are always inadequate. But from this it would be absurd to infer that the power of knowing—Reason, so far as the power of knowing is Reason—is essentially limited or intrinsically defective. The idea of subjecting to criticism the power of knowing, in order to ascertain its value, to determine if it has limits, and if so what limits, is absurd. It is impossible to criticise the power of knowing except by the power of knowing. The viciousness of the circle could not be more evident. Though I have at my disposal no other instruments to weigh with, I can recognise that a balance is false, and I can obtain true weights from a false balance, because besides watching the balance I can reason conclusively. I say, for instance—the balance which is now in equilibrium, its two scales being loaded with certain weights (whether equal or unequal I do not know), will or will not be just according as it remains or does not remain in equilibrium when the weights are exchanged.

Make the conclusion of the argument doubtful and the criticism of the balance will no longer be possible. If our power of knowing had limits, it would not be able to recognise them. We recognise the limits of our visual power, but we do not *see* them :—I see the distant mountain blue,—I know, from having seen at close quarters the same mountain or other mountains, that it is not blue,—I conclude that at that distance the eye does not distinguish colours. This, which I conclude, I cannot possibly *see*. To ascertain through vision the limits of my visual power, I should have to see the blue mountain and its true colour at one and the same time.

VIII

He who propounds to himself the Great Problems, asks if beyond the things that are the object of positive knowledge—beyond those, that is, of which we have and can have experience—there are others. Of these others, be it understood, we can form no notion not founded on positive knowledge: to reach a truth which we do not actually possess, is not possible except by means of truths which we do actually possess. There are only two alternatives: either positive knowledge contains a ladder, by climbing which we succeed in getting above it; or we shall never succeed in getting above it at all, but must content ourselves with extending it, arranging it, making it more and more coherent. Suppose we have ascertained which of these two hypotheses is true; then, whichever of the two be the true one, the Great Problems will be solved.

Not criticism, but theory of knowledge.

One of these was, for instance: "Is there or is there not, above things or in things, a principle of

wisdom and goodness that governs them?" Positive knowledge, duly examined and analysed, will either supply or fail to supply evidence on this point. In the first case, we shall know for certain that the principle exists. In the second, we shall know for certain that the principle does not exist: and then to persist in assuming it, to doubt whether it can exist, and to seek for it, will be totally unjustified. Provided, of course, that the denial that positive knowledge contains any evidence with regard to the principle expresses the result of an exhaustive research and not simply our individual ignorance. Positive knowledge might include and necessarily presuppose the principle without Mr. X. being aware of it. From this we could infer nothing except that Mr. X. was a man of no very keen perception.

Positive knowledge contains, then, without doubt, the solution of the Great Problems. It only remains to seek it there. But seeking it there cannot consist in extending, systematising, and making positive knowledge coherent. Because this—extended, systematised, and connected to any extent whatever—is always of the same nature. It deals with experience, and not with the origin and destinies of things and of ourselves. In order that positive knowledge may lead us where we wish to go, we must not be content with having it: we must make a well-thought-out use of it, —*construct a theory from it.*

The theory might also be constructed by taking as basis the knowledge of a savage. For knowledge not thought out and reflected upon is always in substance of the same nature[1]; and the second is no more theory than the first. It is true that the savage is not capable

[1] As the crawling of a tortoise and travelling by railway are actual movements.

of reflection and consideration, while the cultured man *is*. Philosophy presupposes culture, because the man without culture neither propounds certain problems to himself nor possesses the mental disposition necessary for their discussion. But the material of philosophic reflection is knowledge as such; and that the knowledge should be of such a kind and amount as to constitute culture, is an advantage, but, as far as the material is concerned, only a secondary advantage.

IX

The idea of the theory: to render knowledge fully explicit.

The uneducated man and the learned man who has not studied philosophy know; but they take no account of how they know, or of what knowledge really is. They can be compared with one who makes use of a watch without knowing how or why it has the virtue of marking the time correctly. By looking at a watch from the outside, we can learn to make use of the indications which it gives, and to discover many of its characteristics—its size, shape, &c.—but we cannot know how the watch does its work. To acquire this other knowledge, is anything but observation needed? No; but we must make observations other than those which consist in looking at the watch from the outside. We must open the watch. In opening the watch, in examining it minutely, in taking it to pieces and putting it together again, do we get beyond the watch? Evidently not. But we get beyond the watch so far as only seen from the outside. We get beyond that knowledge which we had of it in this way, and we gain other knowledge of it which could never be attained if we were restricted to looking at it from the outside.

Analogously, he who contents himself with possessing

the common truths, possesses a positive knowledge undoubtedly useful, but he does not get beyond it. The solution of the Great Problems remains unknown to him. He who observes not the objects from the observation of which the aforesaid knowledge is derived but knowledge as such, succeeds by means of common knowledge in passing beyond common knowledge, and may in such a way succeed in solving the Great Problems. Common knowledge is transcended by means of common knowledge; it is transcended in so far as it becomes itself the object of observation. Common or positive knowledge contains, in fact, a ladder which, being climbed, leads us above it. No tower could contain a similar ladder; but knowledge is not a tower.

Philosophy is not reducible to positive knowledge; it is not a mere conglomeration of common truths; and yet it does not imply the presupposition that there are things inaccessible to the vulgar with which the initiated come in contact by means of certain mysterious practices. To construct it requires only a reflective knowledge of knowledge. That known truths are something inaccessible or mysterious, no one will say. We are all capable of them, and all possess them.

To reflect, not on the object of some knowledge in order to know more of it,[1] but on the knowledge as such to become clearly conscious of its presuppositions, of its implications—this is our aim; and it is certainly, though not perhaps easily, attainable. This attained, the solution of the Great Problems would be obtained. We could then deepen it indefinitely, as is the case with all the sciences, but the principles would be fixed once and for ever. For besides things of which we can have knowledge, and knowledge itself, nothing else exists or can exist.

The *theory* of knowledge on which philosophy is

[1] This too can be done; but we are not concerned with it here.

constructed is quite another thing than its critique. The critique of knowledge is impossible, as we have seen. And it has no *raison d'être*. We know that we can know; it is absolutely impossible to deny it, and it is presupposed by criticism itself. The theory, however, is something which remains for us to make after we have acquired knowledge, and it is something that can be made.

One warning, of which there is hardly need: the thought of subjecting knowledge to criticism, of summoning reason to produce its title-deeds before the tribunal of reason, though unjustifiable, was meritorious. It was the first form, necessarily imperfect because the first, of a just conception—the conception, namely, which we have developed: that philosophy ought to be constructed on the discussion of knowledge as such. Only, the discussion can and ought to be directed, not towards *testing* knowledge, but towards rendering it fully conscious of itself.

X

The name "*Theory* of Knowledge" may give rise to an error. Theory and practice are commonly contrasted.

Theory and practice: their inseparability.

Practice is action always designed, directly or indirectly, to attain a good or to avoid an evil. Its presupposition is that man is capable of receiving good or evil, of enjoying or of suffering. This capacity, though distinct from action, is inseparably connected with it; it is, therefore, itself considered as a practical element. If, for example, we were not capable of physical pleasures and pains, a number of things, most important to us, would have no further value for us, and we should either not act at all or act very differently from the way in which we do at present.

But to attain the ends towards which practice is directed, it is not enough that we should be capable

of receiving good or evil, of setting before ourselves as an end the attainment of a good or removal of an evil, nor of acting, *i.e.* of modifying ourselves or things or the relations between us and things. We must also know by what operations, by what means, an end which we propose to ourselves can be attained. We must therefore know things, our own selves, and the relation between ourselves and things. Practical power requires knowledge, which assumes in consequence a practical value of the first rank.

Although it acquires a practical value in this way, knowledge remains quite distinct from practice. It is theory. This, although directed towards practice, or rather in order to be able to be of assistance to practice, must be distinct from it. To abstract from the values which things have for us, is a condition for arriving at the knowledge of things as they are. A doctor, for instance, will examine a patient—I will not say without caring, but as if he did not care about his sufferings or the anxieties of his family. So he should do, and, that he may be able to do so, a doctor ought not to be a near relative of the patient. Similarly with the natural sciences—physiology, mechanics, &c., and with all theory.

Among the objects that we can know, there are also values—there will therefore be theories also of values. A theory of values may make use of another theory; but it always remains quite distinct from it. To value a coin, it may be useful or necessary to know its chemical composition; but this, which is a piece of paper, is none the less worth much more than if it were an equal weight of gold.

The distinction here shown may be introduced also into the field of philosophy. We have thus a theoretical and a practical philosophy. The solution of the Great

Problems seem to belong to theoretical philosophy. In substance, what is it that we wish? To make for ourselves a clear and precise conception of the world considered in its totality. To obtain such a conception, we must assume in face of reality the character of indifferent spectators, like the doctor before the patient, like the physicist before material nature. Is not the abstraction from values a condition of arriving at the knowledge of things as they are? Let us observe the register. Here are things a, b, c, between which exist the relations r, s, t. Things and relations vary according to the laws α, β, γ, and these interfere thus and thus. Man also can be studied in the same way and under a double aspect: (1) as one of the things of which the world is composed; and (2) as an indifferent spectator of the world. To the theory thus constructed we can give the name of Metaphysics.

On the other hand, practical philosophy also follows its own path and develops into another distinct theory. The values most peculiar to man, and without doubt the greatest, are the moral values. Therefore practical philosophy is especially, if not quite exclusively, moral philosophy. That it is possible to construct an independent moral philosophy, precisely as it is possible to construct an independent metaphysics, there can be no doubt. "The moral life is the manifestation of a special function of the spirit," and "the idea of value—of moral value—can only be obtained by a special form of experience." Studying this experience, we construct our ethics, as studying visual experience we construct optics, or as studying experience as a whole we construct metaphysics.

"But perhaps metaphysics and moral philosophy, constructed separately and independently of each other, are not reconcilable?"

Of moral philosophy we demand that it should determine with exactness the end which we ought to propose to ourselves in acting. But without informing ourselves of what the nature of things allows us to hope for and to attempt, it is not possible to determine the end. Of metaphysics we demand that it shall give us a clear and adequate conception of things. But if we make abstraction of our ends, which are verily something and not outside the world, it is not possible to form a clear and adequate conception of things.

Ethics presupposes metaphysics and metaphysics presupposes ethics. If we wish to solve the Great Problems, we must construct a science which is both ethics and metaphysics, which is metaphysical in so far as it is ethical, and ethical in so far as it is metaphysical. Here is the true conception of philosophy. The outlines of philosophy must be those of a theory of knowledge. But knowledge must be studied in its integrity, not only theoretically but also in its practical character. "Not only . . . also" are not the proper expressions, for we are speaking of only one activity which is ever fulfilling one and the same function. In knowing, the man realises his end, and, in realising his end, he knows. We must comprehend the unity of the two apparently distinct functions. This is the problem.

XI

One difficulty of the problem, generally neglected, is put in evidence in the teaching of Jesus. He composed neither a system of metaphysics nor a creed. His intent was to inspire in man an active love of the true and supreme good, to found on earth the kingdom of God. The wisdom taught or aroused by Him cannot exist with-

A difficulty of the theoretico-practical order: to be "ex veritate."

out doctrine.[1] But in His teaching, the doctrine, for the most part implied, is never demonstrated. It is enclosed in the wisdom with which it is also saturated. So to him who fails to reach the wisdom, the doctrine must seem problematic and incomprehensible. He Himself says so :—"*Omnis, qui est ex veritate, audit vocem meam.*" Clearly implying : "The others do not let themselves be persuaded because they cannot hear. Either one word of Mine suffices or centuries of polemics will not avail."

What does it mean, "to be *ex veritate*"? The man *ex veritate*, in the first place, understands[2] that the goods of this world are not true goods, and would not be unmixed with evil even if we could have them all. Pleasures, health, power, consideration, even the sweetest affection so far as it is fixed upon a creature who will vanish like ourselves—all is vanity. Even the inward peace which is the reward of conduct which is praiseworthy from a human point of view, is illusory and fundamentally sad. Life which exhausts itself in such experiences would not be worth living. In the second place, he understands, and feels, as we said, that personality, his own as well as that of others, cannot fail to have an intrinsic value. Our doing, our suffering, our aspiring to something better, must be justified. They are not vain appearances, but reality. Whether they happen or do not happen cannot be all one ; it cannot be indifferent and inconclusive. Our sight is darkened, our desires are disordered and impure, because all or nearly all of us miss the road. But the true road exists ; how are we to discover it ? We mistake for elements of

[1] This gives the reason alike for the Creed and for the successive development and complexity of Theology, and I do not understand how others can speak with lightness either of the Creed or of Theology.

[2] Not in theory alone—it is an understanding which is at the same time a living in the fulness of feeling.

strength what are really elements of weakness. We do, however, possess a real strength ; how are we to recognise it? At a distance, in the twilight we mistake a shadow for a body, but the shadow is certainly projected by a body. Similarly we see, instead of the true good, its reflexions, variable in the appearances of the world, and in running after the reflexions we go to ruin. But that the true good exists is proved also by its misleading reflexions. The error is not in seeking for it, but in seeking for it where it cannot be found.

Let us purify ourselves. Let us free ourselves from concupiscence, from idleness, from a miserly and blind egoism, capable even of believing and feeling itself happy in its misery and through its misery, and let us recognise that, if life as most men understand it is not worth living, a worthy life is none the less possible.

To be *ex veritate* signifies, therefore, in substance, to be in the dispositions which are needed in order that the truth may be recognised immediately it presents itself. The dispositions are of a practical character—purity and rectitude, or, in other words, nobility of feeling. The truth which they prepare us to recognise will then be a practical truth. The man *ex veritate* might therefore turn out a bad mathematician. He might also fail to recognise his duties, but if others point them out to him, he recognises them without hesitation. His high feeling is an implicit knowledge to which an opportunity, an incentive, is all that is needful to make it explicit. Therefore the man *ex veritate*, although perhaps he has not an intellect fit for the complex investigations of philosophy, will be disposed and ready to recognise the truth of the philosophy which is communicated to him. In his feeling, the knowledge of his duty or of his aim being implicit, the solution of the Great Problems is also

implicit *eo ipso*. To render it explicit nothing is needed but an opportunity, an incentive.

Hence it follows that the man *ex veritate*, provided that he has a philosophic mind and the knowledge that is necessary for philosophising—philosophy does not improvise—can construct the philosophy or at least approach it as near as is allowed by circumstances, by his state of culture, especially philosophical culture. But it also follows that the man most favourably gifted and placed in the most favourable conditions, will not recognise or discover the philosophic truth, the solution of the Great Problems, unless he be *ex veritate*. One can be, for instance, a great astronomer and a moral good-for-nothing. Although it is true that all knowledge presupposes a moral value in the knower; nothing is done in any field without a little virtue. But in short, that amount of virtue of which an astronomer has need, is compatible with a disposition that in quite another order is the opposite of the characteristic of the man *ex veritate*. In philosophy it is not so. He who does not approach it with a pure heart and an upright mind approaches it in vain. For the supreme truth of philosophy is an eminently practical truth. He who does not love it seriously and with all his forces does not recognise it.

CHAPTER II

SENSE-PERCEPTION

I

WHAT is the meaning of "to see"? All know except the blind; let us nevertheless try to give a precise account of this which all know. We are speaking of seeing, not of the organs of vision or of the processes which serve them as a means; however it takes place, what sorts of knowledge does the fact of seeing permit us to acquire?

The fact of sense-perception: the sense-perceived and the sense-perceivable.

I see the inkstand on the table, but if I content myself with seeing it, I shall only be able to acquire knowledge of its shape and colour; all its other qualities remain unknown to me—nay, so long as I remain in one and the same position with reference to the inkstand, even its shape and colour are only partially seen by me. What I see reduces itself to an image which can be imitated by drawing—that is, if we neglect the complications due to the binocularity of vision, which can be obviated by using a stereoscope. Further, such an image occupies one and the same place, together with other properties of the inkstand from which it cannot be separated.

I see the image, *i.e.* I am conscious of it; I apprehend both its existence and many of its peculiarities, if not all. Consequently the image, so far as seen, is in me. In fact, to say that the image is in me or in my consciousness, that I am conscious of the image, or that I apprehend it—these are expressions between the meanings of which it is impossible to distinguish.

The image, so far as seen, is in me; more exactly, it is

a constitutive element of me. I am not a sort of receiver into which one can put things that would be inside it without forming part of it. And "to be in me" has no intelligible meaning except "to belong to me," "to be a constituent of me." In considering the appearance, varying, and vanishing of an image, I live these immediately, as a varying of myself. Consequently the image—this same image, numerically one—is on the one hand, *quâ* seen, a constituent of me; on the other hand, seen or not seen, it is a constituent of the inkstand. It is a property of it, variable but inseparably connected, even in its variations, with the other properties of the inkstand, *i.e.* of a body which has essentially nothing to do with me, as I might have passed my whole life without seeing it.[1]

C is a body or system of bodies, variable and supposed to exist or vary independently of any subject. S is a subject, also variable. In sequence to a process constituted by certain variations of C, or of S, or of both, S apprehends or becomes aware of a property of C. This, while it was and remains a constituent of C, becomes a constituent of S, and remains such while S remains aware of it or as long as that process remains in which sense-perception consists.

So far as the property is in the consciousness of S, we shall call it in general a "sense-percept" or a "content of sensation." So far as it is simply a constituent of C, we shall call it a "sense-perceivable." It is understood that a perceivable becoming a percept remains the same, both numerically and (with some restrictions to be noticed later) qualitatively.[2] All this should be made quite clear and rigorously discussed.

[1] What we have said of seeing may be said also of touching, hearing, &c., and in general of sense-perception.

[2] *E.g.* the ball is, as I see it, white and spherical.

II

The sense-percept is, we said, a constituent of the subject, so that every variation of the one is a variation of the other. But the constituents of the subject are not sense-percepts alone; feelings, remembrances, volitions, &c., are always united with them. These elements are very diverse, both in quality and value. The difference of quality between a sense-percept and a desire is only too evident—*e.g.* between a sound and the desire to take two steps. So too is the difference between two sense-percepts, *e.g.* between a sound and a vision, or between two desires, &c. The same may be said of the difference of value—*e.g.* between an indifferent sense-percept such as the fugitive image of a bird passing before the window, which we scarcely apprehend at all, and the most painful remembrance of a catastrophe which has shattered our peace for ever. But all are alike facts of consciousness, elements of consciousness, and of the subject, so far as he is aware of them—all, even the least noticeable, or none, even the most noticeable, are constituents of the subject.

First notion of the subject: Unity of consciousness.

The varying of an element is always a varying of the subject. But if, as is most commonly the case, the element which varies is of little value, the corresponding variation of the subject will also be of little value. It follows therefore that the variation seems to us to take place in what we apprehend, and not in ourselves who are apprehending it. We do not reflect that what we apprehend and we who apprehend it are *unum et idem*. To prove that these are identical we have only to consider that, if each of the elements or facts which we perceive were to vanish, we should no longer apprehend anything, or, rather, we should no longer be apprehending, for apprehension is always apprehension of something.

In other words, the disappearance of all the elements would be a disappearance of ourselves as subjects aware of them; consequently the elements are essential constituents of us as subjects.

For a subject to exist, it is clearly not enough that there should be any number or kind whatever of the above-mentioned constituent elements. Titius desires to have breakfast; Sempronius sees himself before a breakfast ready prepared; Caius remembers an appointment made. Here are three facts of consciousness, but of separate consciousnesses. For a subject to exist, certain elements must exist (or occur), and there must be one and the same consciousness of them all, *i.e.* the elements must be connected in the unity of a consciousness.

Of the subject we do not give—nor is it possible to give—a definition or an explanation in these terms. But by reducing it to the unity of certain constituent elements, we render it more evident how these elements are truly constitutive of the subject. The unity, so far as conscious, is not a distinct element different from those connected in it. It vanishes with them, and in short seems to be a relation of the elements among themselves. Concerning the conditions which ensure the constitution of the subject's unity by certain elements for the moment we say nothing.

The unity is not absolutely comparable to what in mechanics and physics is called a "resultant." In the first place, certain elements presuppose a subject already in existence. In the second place—in relation to the sense-perceivables supposed to exist outside every subject—the resultant of two sounds is a third sound different from the two combined, and so too of two colours, &c., or of two movements, where the unity allows the single elements, of which it is the unity, to subsist.[1]

[1] All questions regarding the *origin* of the subject remain unprejudiced.

III

What is a body? If we abstract from physical or philosophical theories, the value of which may be questioned, and take our stand simply on that which we know from what is given in sense-perception, we must answer that a body is a group of sense-perceivables so bound together as to constitute a certain unity.

First notion of body.

The unity of sense-perceivables of which a body is constituted is totally different from the unity of elements of which a subject is constituted. In the first place, the elements of a subject can never be reduced to sense-percepts alone. As we noted above,[1] an element is the same—with certain restrictions of which we shall treat—whether as sense-perceivable or as sense-percept, *i.e.* whether as constituent of a body or as constituent of a subject respectively. The red which I see is the red of the flower. In the second place, the sense-perceivables constituting a body are never all perceived simultaneously by a subject. For then the body, as such, in its concreteness and integrity, would be an element, a constituent, of the subject. In the third place, the unity which binds together the sense-percepts among themselves—and with elements of a different nature—in the subject is unity of consciousness. It consists in apprehension, which is one and the same in spite of its multiplicity and variety.

That which binds together the sense-perceivables constituting a body can be reduced to a law in virtue of which one of those perceivables cannot vary in a certain way without others—or rather, without all[2] the others

[1] Section I.

[2] That is why they are said to be grouped together.

—varying correlatively in a certain way. Permanence —which is never absolute—must be considered as a very slow variation. Bodily existence, and analogously the existence of a system of bodies or the material world, means the existence of sense-perceivables bound together in respect to their variation by certain laws.

A solid body has a certain shape—a visible surface enclosing a determinate space. If I try to introduce my hand into this space, I fail; I experience a resistance. If the bounding surface of the body moves in optical space, the place where the resistance makes itself perceived moves equally. If I warm the body, its volume, and hence also its shape, varies. A larger sphere has not, strictly speaking, the same shape as a smaller, being less curved. Its shape may also undergo more profound variations; if the body is not equally expansible in every direction, it may become *e.g.* ellipsoidal instead of spherical. Further, the body becomes less resistant, finishes by becoming luminous, &c., &c. To construct the science of Nature means to discover the laws by which certain groups of sense-perceivables, or groups of groups, are constituted, and according to which they vary.

A law is not a sense-perceivable. Hence to recognise the unity of a body, and to distinguish it from a collection of disunited sense-perceivables[1] which present themselves by chance to consciousness together, cannot be achieved by the subject along the path of sense-perception alone. It is, however, true that the laws of facts make some impression also on the consciousness of a subject who cannot formulate them; that is why brute beasts often behave as if they had our scientific knowledge. But between such an impression of the law and its formulation there is a wide gulf.

[1] Such as the shape of one body and the temperature of another.

Sense-perceivables never present themselves separately, but always bound together in the unities which are bodies. Consequently we who can comprehend the unity, though we cannot completely formulate the law which makes it exist, consider sense-perceivables as *properties* of bodies, and recognise in every body a *substance* in which the properties inhere. This shows how a certain manner of seeing is justified, and also the traditional doctrine which makes substance only *thinkable*, not perceivable by the senses.

It remains true that if the sense-perceivables constituting a body—its properties—were to vanish, the body also would vanish, and that their unity is not an element apart, united to the perceivables something like the rope by which a number of rods are tied in a bundle. For in that case either it also would be a sense-perceivable, or no one would be able to say that it existed. It is, however, only a relation of the sense-perceivables with one another.

Let us add that, in spite of the above-mentioned irreducible differences between a subject and a body, certain analogies between them are clear. Each of them is a *unity* of many factual elements bound together by a rational relation or law: unities specifically diverse, but still unities.

IV

According to the doctrine expressed, the same sense-perceivable might at one and the same time become an element of any number of subjects, and every sense-percept might in general be common to many subjects. Many thinkers are, however, opposed to this view, and maintain that a sense-percept is never an element except of one determinate subject—that it is

The perceivables as elements which can be common to several subjects.

always a fact of consciousness exclusively of one subject. A percept of Titius and a percept of Sempronius are always *two;* they may be equivalent, but in no case can they be reduced to one only. At the first glance this opinion seems self-evident. Of two images, of which one is in the consciousness of Titius while the other is in the consciousness of Sempronius, it appears absurd to deny or even to doubt that they are two. Yet if we accept an opinion apparently so obvious, an undoubted fact becomes inexplicable, or, rather, quite impossible. Titius is in Italy, Sempronius in South America. The elements from which the percept of Titius results are for the most part undoubtedly different from the elements from which the percept of Sempronius results; perhaps there is not one element really common to both. However, the two are convinced that they live in one and the same world. Sempronius can, in fact, return from South America to Italy. Suppose him returned; let him live in the same city, the same house, as Titius; let them be always together like husband and wife: what difference does it make if the sense-percept of the one and the sense-percept of the other are always absolutely distinct?—if that of which the one is aware is not that of which the other is aware? Were the opinion under discussion sound, Titius and Sempronius, though always together, would live each in a world exclusively his own, without any sort of communication with the world lived in by the other.

The *real* world, it will be answered, is one alone, the same for all; the *percepts* of the world, as percepts, are as many as there are subjects. Let us see. I have a certain optical image; in everyday language, I see my inkstand. It might be said, in the first place, that the having the image is my having a conscious-

ness of the real inkstand—or, more strictly, of some of its characteristics. In the second place, that the existence of the inkstand consists in my having the said image. Thirdly and finally, it might be said that the inkstand and the image are distinct things without anything in common, bound together by a relation —the relation of cause and effect. Someone else who is here in my study also sees my inkstand. To simplify matters, let us neglect the non-essential circumstance that he and I see the inkstand from two different points of view.

There are three hypotheses under consideration. On the first, each of us has consciousness of the inkstand, which is one only. His percept and my percept are one only, because there is a percept which is his and a percept which is mine only so far as he and I are aware of one and the same perceivable. On the second hypothesis, the things being reduced to images, either there is only one image of the inkstand—of which we are both aware—or we must say that there are two inkstands—which is absurd. There remains the third hypothesis. It is quite evident that in practical life we regulate ourselves according to our percepts, and make no guesses at their causes. The causes about which we do busy ourselves are the laws which regulate the succession of percepts and perceivables, not those which unite the percepts to unknown elements which cannot be observed. Hence it follows that the hypothetical identity of the said hypothetical causes cannot have any influence on practice. Titius and Sempronius see the same street in which both are walking, avoid the same carriages, perceive the same noises, &c. This means that their sense-percepts are fundamentally the same for both. I do not say they are absolutely the same.

V

Let us pause a while over the hypothesis—now clearly seen to be such—that the percept is exclusively peculiar to that subject by which it is perceived, a modification of the subject determined in it by the action of an external cause.

The same argument continued; discussion of the contrary opinion.

I imprint my seal on a piece of wax. The imprint and the form of the seal are two different things. I who see them both recognise that they are equivalent. But what can the wax know, supposing it to possess consciousness? The wax perceives the seal in so far as it has consciousness of that state of its own which is the imprint; the seal remains outside its consciousness. Hence the wax will never know to all eternity whether the impression is or is not similar to the form of the seal. Will it know that there is a correspondence between the imprint and the qualities of the external determining cause? Let it be so for the moment. No one will deny that the hypothesis is assuming an air of great extravagance. The inkstand which I see appears to me to be the real inkstand, or in other words the seen inkstand[1] is my sole motive for admitting the existence of a real inkstand. On the other hand, for the hypothesis under consideration, my representation of a real inkstand would be a psychical phenomenon exclusively mine, the representation in me of a real inkstand independent of me, because and in so far as I might know that there existed a cause x of my representation endowed with certain qualities y, z, corresponding to the qualities of the representation. But as regards this, which I ought to know, I—simply

[1] In "the seen inkstand" I include the parts actually not seen, which I can touch, &c.

as a man, neglecting my philosophical opinions—know literally nothing.

Again, I imprint my seal on two pieces of wax, assumed to possess consciousness. The imprints are equivalent, but distinct. They are *two*. How does one piece know that the other has an imprint equivalent to its own? According to the hypothesis, it can only know that if the other imprints its figure on it. Without inquiring if the thing be possible in dealing with subjects and psychical phenomena peculiar to each exclusively, let us grant that it has taken place. The first piece will have a new imprint and will know that there is an unknown cause of this, with unknown qualities corresponding to the characteristics of the imprint. But this is not to know that there is another piece of wax on which the same seal that has left the imprint on the first has left an equivalent imprint. Metaphor apart, if the hypothesis were true, I ought not to know anything of other subjects analogous to myself, representing to themselves the same worth which I represent to myself.

According to the hypothesis under discussion, the external cause of the percepts would determine them in the subject as modifications of the subject.[1] Many believe, however, that this external cause is to be conceived as a system of bodies possessing the primary qualities of extension, figure, impenetrability, motion, &c., but without the secondary qualities of light, heat, sound, &c. The reason given is that the secondary qualities are clearly sense-percepts, and belong not to the external cause but to the subject, as modifications of the subject. There is a mistake here. Granting there could be an external cause of the percepts in the sense indicated, this would necessarily remain

[1] Or "imprints" in the subject.

absolutely unknown. For extension, figure, impenetrability, motion, &c., would be sensible qualities every bit as much as light, heat, sound, &c.; and if it is recognised that the external cause is without secondary qualities, it would be without primary qualities also, and that for precisely the same reason.

If by "external cause" we understand the cause of our percepts, this must remain absolutely unknown. According to the hypothesis under consideration, the percepts would be "imprints"—simple effects of the action of this "cause" on the subject. We too admit an external cause as conditioning this process of sense-perception. But the effect of such a cause as we also would admit is not the production of "imprints" as simple modifications of the subjects, but sense-perception as a process in which perceivables become percepts by being included in the subject's consciousness. We have said that the "external cause" of the hypothesis must be absolutely unknown. We might have said with greater exactitude that there is no reason to assume such a cause. In sense-perception I undergo violence; *i.e.* the percept is realised in me even if I do not wish it, and is not realised simply because I do wish it. Every percept depends for its realisation and for its characteristics on antecedents and simultaneities according to fixed laws. These laws, over which my will has no power, bind together sense-percepts, *i.e.* according to the hypothesis certain modifications of myself, certain facts of the personal consciousness exclusively mine. Nothing can authorise me to suppose—and one cannot imagine how such a notion came into my mind—that the said laws ought to have a foundation in a reality distinct from my own personality. If the hypothesis were true I should be absolutely enclosed in myself. Solipsism would be not only the only philosophy

that one could maintain, but the only opinion that anyone could possibly conceive.

VI

In all sense-perception there is the percept and the perceiving. I see the blue of the sky—there is the blue seen, and the fact that I see that blue. It is quite evident that the percept as percept is not separable from the perceiving—the blue is not a blue seen by me, except in so far as I see it. But the impossibility of separating the two facts does not exclude the possibility of distinguishing them. Or rather it is necessary to distinguish them unless we wish to make confusions which may easily degenerate into errors. The hypothesis which we have discussed and confuted had its root in the confusion between percept and perceiving; sense-perception was spoken of without distinction of its two different elements.

The process of sense-perceiving: passivity and receptivity.

Perceiving by the senses is a process by which certain perceivables become what they formerly were not—elements *also* of a determinate subject. I was not conscious of a form or colour before I saw it, I am conscious of it while I see it, I shall no longer be conscious of it when I have ceased to see it—neglecting recollection, of which I am not now speaking. Further, perceiving by the senses is a fact exclusively peculiar to that determinate subject,—in which that subject undergoes the action of an external cause; *i.e.* a fact bound by fixed laws to variations which take place outside the subject.

Perceiving by the senses is exclusively peculiar to a determinate subject. The blue of the sky—a single self-identical perceivable—can become an element of

Titius as well as of Sempronius. But for it to become an element of both, both must see it, and that of which both are now conscious is one and the same thing. But Titius' having been rendered conscious of it, and Sempronius' having been rendered conscious of it, are two distinct facts—one of Titius, the other of Sempronius.

In perceiving by the senses the subject is passive—I do not say passive only. While I am in the dark with my eyes open, someone lights a candle. Immediately, without my desiring it and even if I do not desire it, my consciousness is invaded by a multitude of optical images. I find myself therefore in a state different from my former one; I have suffered a shock. Anyone else in the same room also suffers a shock. The shock which he suffers and that which I suffer are two shocks—two variations, the one of me, the other of my companion, not one variation alone. Yet my variation consists in my having become conscious of certain images and my companion's variation consists in his having become conscious of the same images. It does not follow from the passivity involved in sense-perception that the percept is a sort of imprint produced in the subject by an external cause. The exclusiveness of perceiving does not exclude the possible community of the percept. If we distinguish as we ought between the percept and the perceiving, the difficulties which seem to oppose themselves to the doctrine set forth vanish.

Facts exclusively mine are, for instance, my pleasures and my pains; these are never common to two subjects, though two subjects may have similar ones. It is quite clear that pleasures and pains only depend upon our will up to a certain point; this, however, does not prevent us from recognising in pleasures and pains modes of ours of existing. Consequently if our life

could be resolved into pleasures and pains, none of us would know anything of an external reality. All that we know of external reality we know because we have sense-percepts in us. If, however, a percept were like a feeling—a "something" exclusively peculiar to the subject—if it were in substance a feeling with certain indifferent characteristics in place of the tonality of pleasure and pain, it would be, like pure feeling, unsuited to make us pass beyond the exclusively subjective field.

VII

The doctrine which we have accepted and rapidly summarised is in perfect agreement with common sense (vulgar realism). It is only distinguished from common sense by a more distinct consciousness and by a more rigorous coherence. The ordinary man does not suppose that a flower is an absolutely unknown x which produces in him a sensation of red exclusively peculiar to him. He believes that the red he sees is the same as that seen by another, and that it is a quality of the flower. In that of which the ordinary man is persuaded, two persuasions are implicit—only implicit, but undeniably implicit—(1) That one and the same sense-percept may exist at the same time in the consciousness of any number of subjects, and (2) that a sense-percept cannot differ, either qualitatively or numerically, from a sense-perceivable. He believes that the perceivable exists even when not perceived, and does not necessarily vary in becoming perceived; for its becoming perceived is only its being included in the unity of consciousness of a subject.

The doctrine expounded and common sense. The external world as a group of facts of consciousness.

If a perceivable can become perceived without there-

fore undergoing an intrinsic variation ; and if it is clearly a fact of consciousness when it is perceived, then it will be a fact of consciousness also when it is not perceived —*i.e.* it will be a fact of consciousness as a perceivable, as a quality of a body. This conclusion, which we see is implicit in ordinary opinion, will not be easily admitted or understood by one who has no philosophic preparation. But that is because, when we speak of "consciousness," we think immediately of that complex of psychical facts from which our consciousness results, and from which we suppose that the consciousness of an animal results. A flower, a billiard ball, a mountain, if they are groups of facts of consciousness, ought to be so many animals; at least most people think so. But let us consider. An animal is a group not of percepts alone, but of facts of another kind also—feelings, recollections, &c., exclusively peculiar to that animal. Further, in the animal consciousness perceivables also are included, *i.e.* as percepts. There they constitute a group very different from the groups which are bodies—a group *sui generis*, the unity of consciousness peculiar exclusively to that individual animal. If the complex of perceivables from which a flower results were a species of unity of consciousness, it would not fall into my consciousness. But it does so fall. If the red of the flower were something like a feeling—of the flower—it would be outside my consciousness. But I see it. I see the flower, I touch it, &c. The elements which I apprehend by seeing or touching it are facts of consciousness—of my consciousness. They are also qualities of the flower; for it would be nonsense to say (1) that I see the red of the flower, but (2) that the red which I see is not the red of the flower. It follows that the flower is nothing but a group of facts of consciousness. This conclusion, to which we are conducted by sense-

perceiving, has nothing to do with a supposition to which sense-perceiving neither conducts nor could conduct us—the totally unjustified supposition that the flower has unity of consciousness, feelings, &c.—*i.e.* that it is a species of animal. We perceive bodies by the senses; they result therefore from sense-perceivables. But we have no reason to suppose that those facts of consciousness which are sense-perceivables—which can be common to many subjects, and to bodies as well as subjects—are associated in bodies with facts of exclusively subjective consciousness. Resolving bodies into facts of consciousness, but only into those facts of consciousness which are sense-perceivables, leaves intact the distinction between the animate and the inanimate world.

What makes it so difficult for common sense to recognise in bodies complexes of facts of consciousness is the habit contracted of seeing in "consciousness" only feelings, desires, recollections, &c. We include in "consciousness" seeings, touchings, &c., too, but as acts of ours. The percepts we forget, because (we think) percepts are "things" altogether different from ourselves. And it is most true that "things" differ entirely from us; they have no feelings, desires, recollections, seeings, or touchings; they have no consciousness which includes percepts. But they consist of elements which can be included in our consciousness, elements which can unite themselves in our consciousness with those acts of ours which are seeings, touchings, &c., so as to constitute with them inseparable unities. Consequently the elements from which "things" result are facts of consciousness, of a consciousness which has nothing mysterious, extraneous to ourselves—there is nothing so familiar as percepts. Yet it is not the consciousness, one and various, which constitutes a subject.

VIII

It is important for the reader to have a clear idea of the problem we are studying and of the way in which we are studying it. The problem concerns the relations which take place between the subject and external extended reality. In order to discuss this problem we clearly must have, to start with, some notion not only of the reality, but also of the subject. The subject is the unity of certain percepts, *i.e.* it is sentient. This is certain; but it is no less certain that the subject, considered by us here as sentient only, is not sentient only. Our investigation thus meets a first difficulty—a difficulty which we cannot overcome without anticipating to some extent doctrines which will be developed later, and which at present are in course of preparation. As to external extended reality, the opinion most commonly received is that it is independent of the subject, and that its variations determine causally the subjective sensations, in much the same way as these are determined causally among themselves. We do not assume that this view is false—but neither can we assume that it is true. If we wish to build up a theory, we must not assume one; and the view in question does imply a theory about the reality. We must base ourselves simply on fact. Our starting-point is, of course, not "fact in itself," but fact as the thinking subject represents it to itself—known fact. We must refrain from any theory which goes beyond the fact, from all hypothetical explanation; we must take our stand upon the common knowledge alone which serves as necessary basis to all explanation.

Continuation: the external world as a group of facts of consciousness; its distinction from the subject.

But the reader not only possesses this common

knowledge; he has a theory as well, and a theory which he holds to be true. It is penetrated through and through with this common knowledge, so that it is not easy to distinguish the one from the other. If we invite our readers to refrain from the theory in order to hold to the common fundamental knowledge, more than one of them will fail perhaps to realise quite what the invitation means. The pure and simple exposition of the fact will appear to them a theory, explanatory, hypothetical, strange—precisely because they have grown accustomed to considering as "fact" fact as interpreted in the light of their own theory. Here is a further difficulty, due to the mental habits of our readers, but none the less serious on that account.

We too have a theory which seeks to explain; but we propose at present not to expound it, but to prepare the way for it. For this purpose we must—as mentioned above—take our stand simply on fact. Let us come to the fact, and let those who have already understood bear with us if we repeat ourselves. Titius and Sempronius see the self-same inkstand. Let us abstract from the hypothesis of an inkstand "in itself," which is supposed to cause the optical sensations of Titius and Sempronius. Titius sees something—say, a; Sempronius sees something—say, b; the two optical images a and b are not exactly identical—but they are alike. We will discuss the question, how they would become identical, and will leave out of consideration the possibility of optical images becoming associated[1] with images of another kind.

What is the inkstand? Titius bases his affirmation of the inkstand's existence primarily on his knowledge of a, a knowledge which becomes wider as a varies in a certain manner, in connection with the variation of

[1] There is no such possibility, for instance, in the case of the moon.

the other sense-percepts. In the second place, he bases his affirmation on his conviction that, apart from his own knowledge of a as variable in the said manner, there is, or can be—under certain conditions noted above—an analogous knowledge on the part of Sempronius also. Apart from this conviction, Titius would be unable to affirm that the existence of the inkstand is more than the variable a, more than existence for Titius himself. More exactly, such an affirmation would be meaningless.

Of the existence and varying of a and b under definite conditions, an explanation can certainly be asked. It will be found by the construction of a theory. The theory commonly held has been already mentioned; but, as noted, we ought not to assume either this or any other would-be explanatory theory in our present undertaking, for we are here undertaking to purify the facts which are to serve as foundation for the theory. The images a and b are, by hypothesis, identical.[1] Let us leave on one side for the moment the explanatory theory that a and b are to be referred to the action on the two subjects of one and the same inkstand "in itself." Independently of this or any other explanatory theory, the fact remains that (1) each of the two subjects, in addition to having its own image, knows that an identical image exists in the other; and (2) each of the two subjects bases upon this knowledge its affirmation of the existence of the inkstand. Nay, such an affirmation on the part of one subject has significance[2] only in so far as it expresses this knowledge (1) of its own image, and (2) of the identical image in the

[1] At least partly identical, for Titius and Sempronius see the same inkstand. To suppose that $a = b$ is the same as to take account only of those parts of a and b which are identical.

[2] *i.e.* immediate significance before the construction of an explanatory theory.

other subject. The result of these simple statements can be formulated without substantial change in the affirmation that the identical images *a* and *b* can be reduced in effect to a *single* image, of which, however, there are two distinct consciousnesses. If Titius believed Sempronius's image to be another one, different from his own though equivalent to it, he would believe —at least in order to construct an explanatory theory —that the inkstand seen by Sempronius is another one, different from the one seen by himself, Titius, though equivalent to it. It may be objected that further investigations will oblige us to deny this singleness of the image. Well, we will deny it. Singleness does not constitute an explanation, far less an ultimate explanation. If we refuse to assume explanations which can be challenged, we must still consider the singleness as a fact, whether explicable or not—perhaps as an illusion, whether this can be overcome or not.

Let us take a further step. A fact which while remaining one and the same realises itself in two or more subjects must be able to realise itself also apart from any subject whatever. If a point is within a sphere with centre A, and also within a sphere with centre B, &c.: then the point's existence does not consist in its being within any sphere whatever. Unity of consciousness conditions the inclusion within it of an actual colour, but not the actualisation of the colour in the world of fact. It is true that pain is only possible as the pain of a determinate subject, but that is because, as noted above, pain is only experienced by individual subjects; our affliction at the pain of others is never the existence of one and the same pain common both to the others and to ourselves. But pain necessarily implies a manifold of psychical facts brought together in the unity of a consciousness. The word "pain"

means discord, contradiction, as is only too evident in the so-called mental pains, and equally—though not so obviously—true in the so-called physical pains. If I cease to see, hear, think, and remember, a physical pain of mine can last—but not as mine, for *I* have ceased to exist. It continues as the pain of a subject, of the subject which survives the shipwreck of personality, where it is the awareness of discord between certain organic functions. It is true that seeing belongs to the subject only so far as it is associated, in the unity of a consciousness, with other seeings and with facts of a different sort. But seeing, whether elementary or exact, does not have to be conditioned, in order to realise itself, by the simultaneous presence of other seeings or of facts associated with it in the unity of a consciousness. It can and does become actual outside of such a connection too. It is then, of course, no longer the seeing of a subject, and yet it is always that same fact, which will become the seeing of a subject as soon as the above-mentioned associations take place; and it can, in virtue of its own nature, become associated indifferently with this or that unity or with any number of unities whatever.

I do not assert that seeing, outside of every subject —that is to say, colour, or, generally speaking, the sense-perceivable—can realise itself outside of every connection, by itself, in isolation. Isolated facts do not take place. But, over and above the unities of consciousness which are subjects, there are other kinds of unities—there are the groups of psychical facts which are bodies, and above all there is the greatest unity—the universe. Between granting no facts of isolated consciousness, and granting only facts of a consciousness unified in some subject, there is a difference.

IX

Between sense-perceivables considered as outside of every subject, and sense-perceivables included in the consciousness of a determinate subject—*i.e.* between perceivables and percepts respectively—there are certain important differences. (1) Differences of quantity :—I only see and touch at any moment, or in the whole of my life, a very small part of the things which are visible and tangible. (2) Differences of quality :—the surface of the table is round, and I see it elliptical; the distant mountain appears to me blue, whereas it is not blue; between my crossed fingers I seem to hold two buttons, while there is only one there. (3) Differences in spatial distribution :—the stars appear to me attached to the vault of the sky, whereas they are scattered at enormous distances; as I walk, trees, houses, hill-tops, &c., change their apparent relative positions. (4) Differences in time-succession :—from a hill I see a company of soldiers march into a barrack square. Suddenly the company halts, and a moment later I hear the order to halt. I hear it later, but it must have been given a moment sooner. (5) Analogous differences between the ways in which two subjects are aware of the same characteristics of one and the same body. Titius, who has good sight, reads the notice; Sempronius, who is short-sighted, apprehends that it is a notice, but does not succeed in reading it.

Difference between the external world and a group of contents.

The question arises, how the difficulties at which we have hinted are reconcilable with the doctrine set forth. According to this doctrine, sense-perceiving, on the part of a subject, means a sense-perceivable being included in the consciousness of the subject, this being the same

within the consciousness of the subject as without it, and the same for the consciousness of two subjects. It may also be asked, how the subject can become conscious of the differences; but of this second question we shall speak later.

According to common opinion, a quality of a body—*i.e.* a sense-perceivable—only exists in a limited region of space, which is said to be occupied by the body. Common opinion is here incorrect; for if it were correct, not only should we not perceive through the senses—I am some distance from Sirius, and also from the carriage passing in the street—but a number of facts—sense-percepts, not however constituted by our perceiving them—would be impossible. A wall hinders another body from penetrating into a certain space, but does not hinder movement outside that space. Its property of resistance is manifested in one portion of space and not elsewhere. That is why we can say that the wall is in a given place, and has a volume and form invariable up to a certain point. But the property of illuminating other bodies—when it is itself illuminated—is a property of the wall, no less than that of resistance. This second property is not manifested in that space in which we say that the wall exists. It is manifested, with variations at varying distances, in the whole of space that is free from analogous bodies. If we consider this second property—and why not?—we must needs say that the wall is a little everywhere. The same may be said of some other properties of every body—the table at which I am writing is heavy; its weight would appear to be an intrinsic property of it, which would exercise no action except on bodies underneath it. But this is not true. The table is heavy in so far as every particle of it, even the smallest, tends to approach every other body, while every other body tends to approach it. In respect of its

weight, which is certainly a property of it, the table is also a little everywhere.

There is no need to add more. Certain sense-perceivables are localised[1] within determinate confines, but certain others are diffused far beyond the confines which we are accustomed to assign to a body—diffused indefinitely, though not uniformly. Among diffused sense-perceivables there are some which are common to many bodies or to every body, and some[2] which are essentially common—*i.e.* such that they are constituents of one body only in so far as they are constituents of every other body. And those perceivables which are localised make in substance one whole with the others because they depend on them. For example, the volume, tenacity, &c., of a body vary with the temperature. It follows from this that bodies are not elements altogether distinct from the universe, each endowed with its own individuality, though all are connected together, like, *e.g.*, the rings of a chain. A less inadequate conception of what bodies are in regard to the world we gain rather by thinking what the vertices, sides, and diagonals of a polygon are in regard to the polygon. They are elements constitutive of the whole, but in their turn constituted by it; they are terms in certain relations—terms which would vanish with the vanishing of the relations. The meaning of our previous statement—that every body is a group of sense-perceivables—is now much better determined.

A body with respect to its diffused perceivables—diffused to such a degree that in respect of some every body is as widely diffused as the universe—is a centre, a centre of intensity, of variation, of connection. The intensity of the perceivables is greatest in the neigh-

[1] I do not inquire how rigorous the enclosure is.

[2] *e.g.* weight.

bourhood of the bodies, and diminishes rapidly as the distance increases. The variations of the perceivables do not commence absolutely in the bodies; no absolute commencements are given in the physical world. But the bodies are, as it were, their nodal points, from which the variations, having reached them, recommence a distinct phase of propagation. Finally, in a body the varying of one perceivable is connected with the varying of the others. It determines this variation, and is determined by it according to certain laws. Centrality is characteristic not of the body as a whole capable of being moved while preserving its properties intact, or rather changing them slowly, but of each part of it. It is not unlikely that these centralities—manifold, multiform, and connected—constitute the circumscribed sense-perceivables by which the existence of a body is ordinarily manifested to us.

The diminution of the intensity of a perceivable with the increase of the distance from the central body depends not only on the distance, but on the bodies interposed. Thus, for instance, the light emitted by a body is intercepted entirely by an opaque body, but only partially by a transparent body, &c. &c. And the variations of a perceivable require in general time to propagate themselves. The mutual weight of bodies seems to form a solitary exception to this.

X

The subject as sentient.

The subject as sentient[1] is a group of sense-percepts, or in the end of sense-perceivables bound together in the unity of consciousness. It is also always associated with a body—its own body. Of this association, which is a *sine qua non* of the existence

[1] For the time being we are only considering it under this aspect.

of a sentient subject, we must say enough (1) to demonstrate its accordance with the doctrine set forth, and (2) to eliminate the difficulties mentioned above.

A body of any kind is a group of sense-perceivables bound together by a law. The unity of sense-perceptive consciousness is also a law by which sense-perceivables are bound together.[1] Between these two laws there is a difference on which it seems useless to insist after all we have said. I see the colour of a stuff which I have under my eye, and with my hand in my pocket I touch a key; a resistance and a colour are connected as percepts in the unity of my consciousness—it is I who touch, it is I who see—and yet they are not connected as perceivables in the unity of one and the same body. The unity of a body and the unity of a consciousness are, as unities or laws, different. But that to one law —physical or physiological—by which certain perceivables are so bound together as to constitute a body, another should be associated or superimposed, by which some of those perceivables are bound together in the unity of a subject, involves nothing impossible or strange. Whereas, if the bodies are supposed constituted of elements other than facts of consciousness, it is absolutely no longer possible to understand how the unity of sense-perceiving consciousness is always and essentially associated with a body.[2]

We do not assert that the formation of a subject is the consequence of the formation of an organism. When we reflect that the organism is only too evidently preordained to the subject, it seems rather not improbable that the pre-existence of an elementary subject —of a first nucleus of unitary consciousness—may be a

[1] It is in virtue of this binding together that they become percepts.

[2] Not to mention how gratuitous and intrinsically incomprehensible such a supposition would be.

condition of the formation of an organism. Limiting ourselves to what stands in the line of observation—the law which constitutes the organism and the law which constitutes the subject—these are seen to be correlative, though different; neither has value apart from the other. And it is fairly evident that this must be so. The unity of the subject is not extended to the totality of the sense-perceivables; though, as unity, it can be extended to any perceivable[1] whatever, it never includes more than a relatively minute part of them. The fact that I do not see certain things, and shall never see certain others, must be referred not to the things nor yet to the law which constitutes me, but to something else—to the laws which preside over the grouping and connected varying of sense-perceivables outside every limited unity of consciousness.

Some sense-perceivables—relatively very few—are included as percepts in my consciousness, while all the others are excluded from it. The reason for this difference is that those first perceivables, and those only, are connected by a physical and physiological law in virtue of which they constitute a body—my body. We have already said that the sense-perceivables perceived by me are elements of me, the only ones from which the sense-perceiving *Ego*[2] results. We now see that the same perceivables are connected by another law too, so as to constitute my body. The same sense-perceivables constitute my body and me—my body, so far as they are connected by a physiological law; me, so far as they are connected by the unity of consciousness. These two laws are correlative, and each presupposes the

[1] No colour exists which by intrinsic necessity, either of the colour or of me, must be invisible to me.

[2] The unity of consciousness is not *one element*, different from the others.

other. Every sense-perceivable which is perceived is thereby an element both of that unity of consciousness which is my ego, and of that physiological unity which is my body. We can therefore say that substantially I never perceive by the senses anything but myself or my body. There is no need to point out that the meaning of this proposition is by no means solipsistic.

XI

The book which I see does not form part of my body. On the other hand, the liver which I have never seen does form part of it. This observation, just, though commonplace, does not constitute a serious difficulty. The book is illuminated by the sun —that is to say, a sense-perceivable which belongs to the sun belongs also to the book. The book and the sun cannot be resolved entirely into the same perceivables, and hence they are *two* bodies; but that does not prevent one and the same sense-perceivable with different intensities from being an element common to the book and to the sun. The sun with its light reaches the book. On the other hand, this light of the sun which reaches the book and is reflected from it is the light of the book. Is not what I see—the white of the paper, the black of the letters, &c.—a complex of qualities of the book? The subject and its body.

The book is seen by me—that is to say, some sense-perceivable which belongs to the book, which is an element of it, is at the same time an element of a conscious subject. But for me to see the book, the book must illumine the inside of my eye. The eye's being illumined by the book means, if it is seen, that a perceivable, an element of the book, is at the same time an element of the eye. A perceivable, without ceasing to be an element of that group, which is the book, becomes

an element also of that other group, which is my body—and this as a *sine qua non* of that perceivable being included in my consciousness.

The external body, seen, touched, &c., and the body of the subject remain two distinct bodies, because not every element of the first becomes an element of the second. But among the perceivables from which the external body results, only those perceivables are perceived which are united to the body of the subject, becoming elements of it also. Colours, sounds, &c., do not belong only to the subject's body—or rather they belong to this only in so far as they belong also to some other body, and the subject which includes them in its own consciousness is rendered aware of something other than its own body. But colours, sounds, &c., do not belong to the subject unless they belong also to its body; they are not included in a unity of consciousness unless they are included in a physiological unity. This, however, cannot be comprehended by anyone who has that narrow and vulgar conception of body of which we have already shown the insufficiency.

In relation to the subject's body we must make an important distinction. The sense-perceivables of which my body is a group can be divided into two sub-groups. The elements of the one group—"A"—are elements also of me as subject; they are what I perceive. The others—"B"—are as a rule outside my consciousness. They exist in order that the A-elements can both exist and remain in the conditions which render possible their inclusion in one consciousness. The whole which consists of the A-elements is essential to the subject, at least to the subject as sense-percipient. The B-elements constitute together with A a body which is called mine, because (1) it includes the A-elements, and because (2) its B-elements, which are inseparable from the A-elements—

these in turn being inseparable from me—have themselves an absolutely peculiar connection with me.

The sub-group A corresponds, very nearly, to the nervous system, but not more than very nearly. Certain constituent perceivables essential to the nervous system —its structure, for instance—remain outside consciousness. But certain others[1] are included in consciousness by the very fact that they are, or have become, constituents of the nervous system. In that consists the essential correlativity of the two laws (1) of unity of consciousness and (2) of unity of an organism. In this way sense-perceiving is fundamentally explained. Its particulars relating to physiology and psychology cannot be dealt with here.

XII

Only those sense-perceivables which are associated in the unity of the nervous system can be associated in the unity of consciousness. It follows that the physical and physiological conditions of the possibility of a perceivable's being associated[2] with the nervous system are at the same time conditions of the possibility of a perceivable's being included in the unity of consciousness. I cannot touch with my finger other than earthly bodies; of these I touch very few simultaneously, and the number of those which I can touch in succession is also very limited. It follows that, of the perceivables which have precise spatial limits, relatively very few are perceived by me, and, but for the diffused perceivables and the aptitude of the nervous system to form a

Condition of the perceivables being included in the unity of a consciousness.

[1] These are either essential to the system or united to it in consequence of certain processes, such as having the eyes open, the hand extended, &c.

[2] *i.e.* becoming an element of it, as we have said.

system with them, the perceivable universe would be reduced to a mere nothing.

By means of sight my consciousness extends itself to enormous distances. Of a distant body, however, I only see the part which, by means of its luminous perceivables, succeeds in forming a system with that very small part of my nervous system which is capable of it. I see only by means of the eyes, and disease or an accident may render them more or less ill-adapted to this function. Thus I may be long-sighted or short-sighted, or colour-blind or totally blind. In any case I only see in front of me. I only see through transparent bodies, and these—even the most transparent—retain the light in part and modify the colours. The shapes and distribution of the bodies visible to me are images in perspective, like those formed on the retina.[1] Hence a round disk, if not right in front, seems to me oval, and the apparent distribution of the bodies varies with the point of view. If my nervous system is not in a pathological state, the diffused perceivables are perceived by me as they are,[2] but as they are where my body is situated, where alone my nervous system can assimilate them.

The diffused perceivables are not stably diffused. Not only do they vary, but their very existence is a varying,[3] a varying in space and time, and in different times according to the diversity of the perceivables. This time-difference accounts for the fact that an apparent order of succession is sometimes different from the real succession.

[1] Of course I see the bodies and not the retinal image, but my seeing them is conditioned by that image.

[2] The contrary supposition is gratuitous and leads to the incongruities noticed above.

[3] This is also true of every perceivable, though slowness of variation often simulates permanence.

In this connection we must take into account not only the nervous system, but also the subject—not only the physical and physiological laws of the grouping of the perceivables, but also that other law which is unity of consciousness. A perceivable becomes included in a consciousness which is already a complex of percepts. Roughly, it is the same as if I poured water into a vessel. It is quite clear that the water poured is not a modification of the vessel. But it is also clear that neither the water nor the vessel are absolutely inert. They are in the relation of container and contained, and thus an exchange of actions and reactions will take place between them. The new percept modifies the subject by its very presence—it is a new element of the subject. But it will determine further modifications there. An object which I see makes me remember another seen before; it provokes a feeling, desire, &c. The percepts, as percepts, establish bonds between themselves, and what a percept is depends in part upon the bonds contracted, while these in their turn depend on what the percepts are, and are generally modified by the appearance of new percepts and the disappearance of old ones.

In conclusion, we are sense-percipient subjects because, and in so far as, we unify in our consciousness certain perceivables which are independent of it. With all this, or rather because of it,[1] sense-perceptive consciousness is different not only from the scientific knowledge which we have of the world, but from that image which we have of it and which serves as the basis of scientific knowledge. In the subject we must recognise other aptitudes besides that of being sense-percipient.

[1] By the conditions of our sense-perceiving or of our existing.

XIII

All that we have hitherto set forth should serve as a preparation for the doctrine which we shall proceed to expound, and should be taken for a preparation only, not for a complete explanation. But since the preparation is well understood, a few anticipations[1] of the doctrines which will be established later will not be out of place here. Each of the subjects of which we have sure information is more than a unity of sense-percepts; it is also a centre of activities. And it results from the development of a pre-existent unity of sense-percepts, that it is at the same time a centre of activities. For example, a young boy is not a subject in the same sense as a man is; yet from the moment of birth, and even before, he is active and sense-percipient. His development consists in the extension[2] and organisation of sense-perceptive consciousness, this last going hand in hand with the organisation of his activities.

Retrospect and anticipations.

As to how or whether a conscious active centre begins to be, it is useless to risk suppositions. But with regard to its development we can lay down with certainty that it is determined by the interference of the activity which is a constituent of the centre with other activities. Among these "other activities" there are quite certainly those of not a few analogous centres. Whether these "other activities" are for the most part of an entirely different nature, is a question the answer to which should (1) have a meaning—not all propositions which seem to have a meaning really do so—and

[1] *Cf.* Chapter III. Sections iv., ix.–xii.; *Reality and Reason*, Sections ii., vii., x., xii.; *Being*, Sections vi., vii., ix.

[2] By means of the acquisition of new sense-percepts, which are remembered with increasing stability.

(2) not include a single gratuitous hypothesis. Well, the existence of activities referable to centres which are at the same time unities of sense-percepts is beyond dispute. The existence of activities of an entirely different nature is, on the other hand, a hypothesis of which we do not know whether it has any meaning. It follows that such a hypothesis is inadmissible—unless we have first demonstrated the impossibility of conceiving the universe as a system consisting solely of the activities which can be referred to the above-mentioned centres. That the hypothesis[1] is gratuitous, and therefore not to be seriously considered, will be proved by the present book. In this place we wish to pause for a moment, to note that the abandoning of such a hypothesis—*i.e.* the reduction of reality to simple phenomenality—implies and makes clear the doctrine set forth above, and is in turn implied in it and made clear by it.

Two centres, A and B, each of which is active and is a unity of certain percepts, operate upon each other. The result is a varying[2] in the perceptive consciousness both of A and of B. The new percepts which in this way become included in the consciousness of A and of B depend from one point of view more or less on the previous contents of the two consciousnesses, and will consequently be in general more or less different. But they depend also from another point of view essentially on the reciprocal action which has taken place between the two centres A and B. This action, though it presupposes the two distinct activities of A and of B,

[1] The hypothesis of activities of an entirely different nature, activities whose existence would not be the existence of a consciousness.

[2] The varying presupposes that each of the two centres had already a sense-perceptive consciousness, and this again presupposes other previous actions of each centre on other centres. It is useless to ask when and how this process began to be.

is yet a single action. The consciousness formed of it in A and the consciousness formed of it in B have from this point of view one single content, though as consciousnesses they are two. The possibility of there being two or more distinct consciousnesses in a content which is partly[1] the same for both is thus proved. It makes no difference to the argument however developed the two subjects A and B are, or if their reciprocal action is not immediate but becomes realised through the mediation of other centres,—or finally, if instead of the reciprocal action between two subjects we consider two reciprocal actions between a partially systematised group of centres and each of the two subjects respectively.

In the same way it can be proved that the existence of a sense-perceivable cannot be reduced to its being perceived by any subject whatever. Let us see. A sense-perceivable is never different from a fact of consciousness; this is equivalent to saying that its existence is always a being included, as sense-percept, in the unities of at least two centres—with a certain diversity, which can be very slight, in the two cases. But we must not forget one circumstance. The universe, though its existence can be resolved into its being a system of the said centres, implies so many of them that the activity of one is as nothing in comparison with the whole consisting of all the others. I am here in a sunlit room; in my consciousness there is a great number of images which vanish if I close my eyes. The existence of these images is due to the interference of the activities of very many centres not only with one another but also with my activity. If I close my eyes, my activity ceases to interfere in a certain way with the whole consisting of the other activities. But the whole, by

[1] The part common to both will be able to vary with circumstances from an indeterminable minimum to almost the whole content.

reason of the fact that one of its elements is thus eliminated—and that only partially, under one aspect—has only undergone an absolutely minimal variation. The system remains, I might say, identical; for the whole consisting of the perceivables—which was their product—remains identical. These perceivables, now no longer perceived by me, can be perceived by any other subject whatever—with differences greater or less according to the intrinsic differences between the other subject and me. They will be perceived afresh by me as soon as I reopen my eyes.

That all this is quite clear I do not pretend. The book is not yet ended. Yet I believe I have said enough to make it intelligible that certain affirmations, at first sight paradoxical, can receive a meaning, and even appear—as they do—to rest on ordinary evidence, since they are connected with my whole theory. To break the rods of a bundle one after another is easy; it is less easy to break the bundle as a whole.

CHAPTER III

MEMORY, FEELING, ACTION

I

In the consciousness of the subject there are, besides sense-percepts, representations or images. If in conversation I happen to say, for instance, "elephant," suddenly a species of picture confronts my hearer, so that he seems to see confusedly or to half-see an elephant. Representations arise also when not called forth by words heard, but having arisen they then claim for the most part the corresponding words. We have compared them to pictures, but there are also some of another kind. For instance, hearing the word "thunder-storm," I seem as it were to see a sky covered with clouds, furrowed by flashes of lightning, &c., but together with this I seem to hear the rolling of the thunder, the beating of the rain, &c. We add no more—images or representations are very common facts. If we wish to speak of them, few words are needed to make everyone understand of what we are speaking.

Memory and representation as facts belonging exclusively to a subject.

When I see, touch, &c., there is in my consciousness (as a percept) a sense-perceivable which may be simultaneously in the consciousness of another also, and whose *existence* therefore does not consist in its being in my consciousness or in any one else's. The question arises, as to whether the representations are (can be) like the sense-perceivables, elements common to many subjects, so that many subjects may be conscious of *one*

and the same representation—save for differences of secondary characters, like those already noted in the way in which different subjects have consciousness of the same perceivable thing—or whether instead every subject has his own representations, like another's as much as you please, but numerically distinct.

Suppose a few of us are in the Raphael Galleries admiring the "School of Athens." It is quite evident that the "School of Athens" seen by all is only one. My friend sees it, someone else sees it, I see it, each of us has a "School of Athens" in his consciousness. But there is no motive at all for supposing that what my friend has consciousness of is numerically other than what I have consciousness of, &c. The supposition appears gratuitous, and therefore not to be taken into consideration without reference to the very extraordinary consequences which follow from it. To assert that there is one "School of Athens" seen by us, and visible to anyone whatever,[1] is not to formulate a theory which needs proof. It is simply an expression of the fact, immediate and without prejudice.

On leaving the Vatican, my friend and I proceed to talk about the "School of Athens," of which he and I alike have an image. One image only for both or for each his own image? For each his own, evidently. The immediate and unprejudiced expression of the fact in this case is the opposite of what it was in the preceding. As, when we were before the fresco, not to admit that the same was included in my friend's consciousness and in mine was to formulate a strange and gratuitous supposition, so it is strange and gratuitous to admit now that there can be one and the same image in my friend's consciousness and in mine.

[1] *i.e.* included in our consciousness and capable of being included in that of any subject whatever.

A fortiori, the same may be said of the images corresponding with common nouns—elephant, triangle, &c. Each of these nouns has a signification which of necessity must be one and the same for everybody. Otherwise we should not understand each other. But the signification is a *concept*—that is to say, quite a different thing from an image.[1] An image—for instance, that of a triangle—is always something oscillating, as everyone can easily recognise. That which I have before me in a given moment is never identical with that which I myself have before me in a successive moment. How could we maintain, then, that the image present to me is identical with that present to another?

II

Memory and recollection.

Recollection implies always an image or representation of the past physical fact which is recollected, on the nature of which we have spoken. For instance, I recollect the obelisk of Montecitorio. I do not see it, and I know that I do not see it, but I seem almost to see it, I have an image of it.

I recollect something unpleasant. I do not experience it,[2] but I have the circumstances and details before me. The relation that exists between the actual psychical phenomenon and the past unpleasantness is precisely similar to that which exists between the actual image of the obelisk and the obelisk I saw. The actual psychical phenomenon may well be called an image or representation of the unpleasantness. But the recollection, though

[1] What it is to think a concept, and in what mutual relation concept and image stand, we cannot stop now to explain.

[2] Recollection can call forth a renewal of the unpleasantness, but the renewal of the unpleasantness in consequence of the recollection is a different thing from the recollection—as appears from the fact that to recall an unpleasantness may be pleasing.

it implies an image, more or less faithful, of the past psychical phenomenon, cannot be reduced to that image only. It happens at times that with regard to a present image one is uncertain whether it is a recollection or a mere product of the fancy. To constitute recollection, the image besides existing must be recognised as the image of a certain past psychical phenomenon.

The recollection is expressed by means of a judgment. Does recollection then imply a judgment? Let us reflect. At this moment I recollect the obelisk of Montecitorio. I can say, the image which is now in my consciousness is an image of the obelisk. Now by what am I authorised to say this? Evidently by the recollection without which I could not speak of the obelisk. I could not even suppose, much less know, that my image was that of that obelisk or of any obelisk. The explicit judgment expresses the recollection, but cannot constitute it, for it presupposes it.

It remains that the recognition essential to the recollection consists in an implicit judgment. There can be consciousness of a relation which is not known.[1] This takes place when the subject is capable of making use of it or perceives at least that it is changed. For instance, on my desk there are books, sheets of paper, and several other things in a certain mutual relation. I should be greatly embarrassed if I tried to formulate these relations; strictly speaking, I do not know them. But I have consciousness of them. I put my hand without hesitation on what I want, and if anyone in my absence were to change the order or disorder of those things, I should perceive it afterwards. An implicit judgment is the consciousness (in this sense) of a relation.

[1] More strictly, which is not formulated in an explicit judgment.

The implicit judgment constituting recognition is, then, the consciousness of the relation that subsists between the image and the psychical phenomenon recollected. And it is quite evident that the recollection is constituted by the consciousness of that relation. I recollect the obelisk in so far as I know that my image is the image of the obelisk. In conclusion, the implicit judgment in which the recognition essential to the recollection consists is in short nothing other than the recollection. We were seeking an explanation; we have found a synonym. We recollect—this is certain. But how we recollect, or how we have consciousness of certain relations, remains to be investigated.

III

Memory and the consequences of a fact. Permanence essential to memory.

A past fact leaves some consequences of itself. Suppose we have a thin steel lamina, narrow and straight. I twist it round itself spirally, and let it go. It straightens itself, it seems to have returned to its former state—it seems, but has not. If I repeat the operation a very great number of times, always in the same way, the lamina will end by remaining somewhat curved or by breaking. Then the first twist has left a consequence, so slight as not to be directly observable, but lasting. We may say that the lamina recollects (in a certain sense) being twisted.

There is no doubt that among the conditions of recollections there are also facts of the nature of the example referred to. A fact is recollected because it has left in the psycho-physical organism of the subject consequences which in some way sooner or later come into consciousness. But recollection cannot be reduced to consciousness of the consequences, be they what they

will. I see in the earth the print of a human foot. I conclude that someone has passed that way. This knowledge of mine is not recollection. When undressing to go to bed, I take my watch out of my pocket and proceed to wind it up. I perceive that it has already been wound—no doubt by me. However, I do not remember having wound it. The being conscious of certain consequences of a fact may be a condition of recollection, but by itself it is not recollection. Therefore recollection cannot be reduced to inference by which we infer the past from the present, without reckoning the fact that such inference implies recollection. How could I, from the fact that I am in my study, infer that I must have climbed the stairs, if I did not recollect that I have been out of doors and that I do not live on the ground-floor? Or rather, if I did not recollect, how could I think of a past, and try to find out anything?

In order that a present psychical content (*psichicità*) may be a recollection, it is not only necessary for it to be like a past one, but, as we said, it must be connected with the past one by certain relations.[1] And there must be consciousness of these; they must be included in the present psychical content, so that through them the past content may be reproduced and again become present. Present consciousness of a past phenomenon—that is the essence of recollection.

The whole of a certain past state is never present. It is enough, for the existence of recollection, that a part of the past, or some characteristic mark, or any element whatever (even a revelation) should live over again, provided that something in the present should be the same as in the past, and be present *as past*. This is as much as to say that recollection implies permanence.

[1] The resemblance may be very relative, and whatever stage it reaches it is insufficient to constitute a recollection.

It cannot be a *new* fact. Because a new fact—absolutely new—does not constitute a recollection, not even if it is the exact repetition of an anterior fact. It does not gain the quality of recollection except by being connected with another which is itself *per se* a recollection, and which therefore is not new at all. *To explain* this permanence, a permanence altogether *sui generis*, which is the essence of recollection, to reduce the recollection to something else, to construct it from something else, to make it stand out from elements which do not imply it and do not presuppose it, is impossible. Recollection is something absolutely primitive, irreducible.

IV

As a sentient being, the subject can be reduced to the unity of some sense-perceivables[1]—a unity *sui generis* altogether different from that which out of several sense-perceivables constitutes a body; but still a simple unity of elements—elements of which that unity does not constitute the essence. Any sense-perceivable whatever, in fact, can be included indifferently in the unity of one subject, and in that of another, or in that of many subjects at the same time, or may even not be included in any one of such particular unities.

The subject not a simple point of interference.

As a sentient being only, the subject is nothing but a point to which facts of consciousness so contribute that from the separate consciousnesses which constitute them there results one consciousness alone, which, however, contains no elements which can be called exclusively its own. The subject A and the subject B differ in so far as each includes certain sense-per-

[1] These, in virtue of being bound together by that unity, become percepts.

ceivables which are not included in the other, but their difference cannot be referred to anything by which the one or the other unity is characterised as that particular unity. Neither of the two sees the back of its own head; each of the two can see the other's. The reason lies here—each of the two has eyes in his face. A merely sentient subject which was reduced to sight alone would be nothing, in short, but the binocular vision which one has at that moment from that determinate place. If to sight we add touching, hearing, &c., with the greater complication we shall still have in substance the same result.

But the subject which imagines and recollects—as every subject does—exists in quite another way than as a simple point of interference of elements not its own. The images, and hence the recollections also, are, unlike the sense-perceivables, only subjective facts peculiar to the particular subject. The images and recollections exist in so far as that subject exists, and would disappear with it. Every subject has its own, which are not and cannot be in common with any other. The subject capable of images and recollections has, then, an individuality of its own, quite otherwise determined, circumscribed, and enclosed in itself than one which is capable of sense-percepts only. For a rough illustration: let A and B be blank manuscript books, C and D manuscripts. A leaf may be passed indifferently from the first to the second, but not from the third to the fourth. On a blank leaf there is nothing to indicate whether it belongs to A or B, whereas a written leaf can only belong to C or D or to neither of the two. A, B, C, and D are four unities, but C and D are unities much more narrow, more organic, more intimate, than A and B.

A subject capable of sense-percepts only could only

be identical with itself as long as all its percepts remained the same; the slightest variation would be the end of that particular subject, and would mark the formation of a new one. That is as much as to say that such a subject cannot exist. A subject which remembers is the same in a certain sense for the whole time to which its recollections can extend. The varying of a percept (and also of an image or recollection) is certainly a variation, but not enough to suppress the sameness of the subject, and the varying *of one* subject is not one subject succeeding another.

A subject capable of sense-percepts only would never become capable of images and recollections. Therefore a subject must initially be capable of recollecting. It must initially be a unity of *its own* elements—elements not belonging to other particular formations, nor yet to the whole except in so far as the subject itself is included in the whole. This is a circumstance of which we must take serious account in an investigation into the formation of subjects, but which for the present allows a deeper and more exact view of the nature of the subject than if we limit ourselves to considering only the unity of sensory consciousness.

V

Permanence is essential to recollection—a permanence *sui generis*, as we said, not obtainable from anything else, nor reducible to anything else. It is inseparable from the subject. To suppose that a recollection may have, like the sense-perceivables, an existence independent of that of a determinate subject, while it can only be included in the consciousness of one determinate subject, is nonsense. *Per contra*—I do not always recollect all that I

Unconsciousness essential to the subject.

can recollect, or rather I never recollect more than a minute part of it. A recollection which occurs to me informs me by its very occurrence that it was not present before—the "before" being sometimes a very long period. That recollections come and go, disappear to reappear more or less varied, and change with time and other circumstances, are facts not only accessible to the roughest observation, but which force themselves upon it.

Therefore—we must admit it—the subject is not unity of consciousness only: it is at the same time unity of consciousness and unconsciousness. And let us not be troubled by the accusation of contradiction. Admitting the hypothesis that the subject is only a certain unity of consciousness, to say of an element that it is not included in that unity of consciousness, and that nevertheless it is included in the unity of that subject, is contradictory; but we consider that hypothesis erroneous.

We do not wish to withdraw anything of what has been established. But we recognise that what has been established *requires* a complement. The unity of consciousness cannot stand by itself. It requires, in order to exist, a unity of unconsciousness inseparably associated with it. The elements which are not included in a unity of consciousness, but which cannot be dissociated from it without destroying it, are also constituents of the subject. Of all this we must render to ourselves a very clear and explicit account. We shall see that we are not building up hypotheses without foundation. Let us content ourselves with setting forth the thing as it is. We are dealing with a thing which all know in substance, but on which few reflect, while the reflection of those few who do so is often disturbed by doctrinal preconceptions. Therefore the reader who desires to understand must help himself a little.

Consciousness and unconsciousness are, of course, understood in relation to a determinate subject. We cannot speak of *absolute* unconsciousness. Sense-perceivables are not facts of absolute unconsciousness. But not all, nor yet the greater number, are perceived by a determinate subject. They exist, they persist (those that do persist), and they vary even outside of a certain unity of consciousness in a sphere of (relative) unconsciousness. What is true of the sense-perceivables must also be said of elements of another species, *i.e.* here of representations and recollections. They are facts of consciousness—a recollection, whether present to me or not, is always the same thing, therefore always a fact of consciousness, since there is no doubt that it is such when it is present to me—but they are not of necessity, nor always, included in the unity of consciousness of the subject.

Between recollections on the one hand and sense-perceivables on the other, there is, however, a difference. The sense-perceivables have no essential relation to the subject.

The blue of the sky which I see, others see also. It would not be so easy for others to search among my papers, but this would be a difficulty perhaps physically insuperable but not of absolute intrinsic impossibility. But the representations and recollections which are or may be included in my consciousness cannot be included in any other consciousness—the "cannot" indicating here an absolute and intrinsic impossibility. Representations and recollections are in this respect like feelings (though in another they are more like sense-perceivables). There is no headache which can, like the blue of the sky, exist independently of every subject or be included in the consciousness of any subject whatever. My headache is mine only, and if it ceases to exist as

mine, if I no longer have it, it has in fact ceased to exist. So my representation and my recollection are mine only. No one else can have them. But there is another difference. My headache that has ceased has ceased entirely. I can recollect it, but to recollect it is not to have it over again. I can "have it again," but what is improperly called "having it again" is really having another. To have a headache two, three, or ten times is to have two, three, or ten headaches. For a stone to fall again is a new fact—not the repetition of the same fact which was its first fall—whereas a recollection which is repeated must be the same. There may be diversities, but something must be numerically the same in the original recollection and in that which reappears, or the reappearance would not be a reappearance. We must needs say, then, that the recollections, even when they are not present, persist—partially at any rate—outside the consciousness of the subject, in a sphere of unconsciousness, which is nevertheless inseparably associated with the consciousness of the subject, so that it would vanish with it.

We said that the subject was a unity of consciousness and unconsciousness, and we have now made the sense clear, and have justified what we said. The assertion, which might at first seem obscure and hypothetical, is only the pure and simple statement of an incontrovertible fact.

Let us notice this too. In having ascertained that the subject implies essentially a sphere of unconsciousness, we have formed for ourselves a more adequate conception of what the subject is. We understand better that the subject, although as a sentient being only a point of interference of sense-perceivables which have no essential relation to it, cannot be reduced to such a point of interference.

VI

The same argument continued.

The things of which we have spoken briefly are connected with a number of physiological problems. But they hold good, whatever be the true solutions of those problems, and they are sufficient for our purpose. Something, however, we will add which may help us to a clear understanding of what has been said. This section and the following may be considered as digressions.

Between the consciousness and unconsciousness which constitute a subject, there is no precise distinction, as all know. It may be well compared with the different clearness of our seeings according to the part of the retina on which the light falls. We see well the bodies whose retinal image is formed on the *macula lutea*. The others we only see confusedly. It is not that we have clear consciousness of something confused, as, for instance, when we do not see well, however carefully we look, because the light is insufficient; we are really less conscious of them. The same may be said in reference to all the sensations. For instance, while we are attentive to one noise (to distinguish whether it comes from indoors or out, &c.), we are much less conscious of all the others, which we still perceive in some degree. There are grades in consciousness. We go from an indefinite maximum to an absolute minimum which is unconsciousness, but where consciousness ceases and its light vanishes no one can say. Therefore all recognise a subconsciousness, between consciousness and unconsciousness, doubtless with reason; but it is only right to note that consciousness grades insensibly into subconsciousness, and this again into unconsciousness.

This proves how necessary it is to distinguish be-

tween the consciousness that constitutes a fact and the consciousness which a subject can have of the same fact. It proves that the unity of subjective consciousness is truly, as we said, a relation between facts which are certainly facts of consciousness, but not always necessarily of one consciousness, of a consciousness which constitutes a subject. A given fact remaining always the same is more or less strictly bound up[1] with others which are already in my consciousness, and, according as the bond is more or less strict, I am more or less conscious of the fact. The fact falls, with respect to me, in the zone of my clear consciousness, or into that of my dark consciousness, or into that of my unconsciousness.

Finally, the fact may fall altogether outside my consciousness, remaining always bound up[2] with those which are included in my consciousness. The unconsciousness into which the fact then falls can be called *mine*, inasmuch as it is bound up with my consciousness and with mine only; and it may be added, inasmuch as the existence of such a zone of unconsciousness is a condition of the existence of my consciousness. Since my consciousness grades insensibly into subconsciousness and into unconsciousness, it cannot be denied that a certain zone of unconsciousness (which can be called *mine*) constitutes the ground in which alone my consciousness is rooted and by which it is nourished. It is, in short, a condition of the possibility of my consciousness.

[1] Such a bond is, as we have said, *sui generis*, altogether different from that which constitutes a body of several sense-perceivables.

[2] The bond is a relation which is always of the same kind—that is, always one and the same law, making itself felt in a different way.

VII

All that is not actually in the consciousness or subconsciousness of a subject falls, with respect to that subject, into unconsciousness. But the unconsciousness that is related to a subject is not all of a piece; it is subdivided into many zones between which we must distinguish. In the first place, the psychical facts peculiar to a subject—representations, recollections, and others on which we shall touch—fall in every case, with respect to any other subject, into the zone of absolute unconsciousness. A representation of Titius never is, and never can be, included in the consciousness of Sempronius. Not that it cannot have any sort of relation to Sempronius. The representations of Titius have influence on what Titius says to Sempronius, and therefore on Sempronius. But the psychical facts peculiar to a subject can never have any but a mediate relation to another, inasmuch as they are connected (still mediately as a rule) with elements which can be included in the consciousness of the other subject. Secondly, every sense-perceivable not actually perceived by a subject may be said to be comprised in the unconsciousness of the same subject. The entire physical world would then be included either in the consciousness or unconsciousness of any subject whatever. In fact no sense-perceivable exists which cannot by its very nature be perceived by any subject whatever. Besides the sense-perceivables are all connected among themselves, and therefore with those which are and may be included in the consciousness of a subject—that is, they are all connected with the subject.

Diverse zones of unconsciousness essential to a subject.

But there is great variety among these connections. We cannot possibly[1] see the opposite face of the moon.

[1] The impossibility is physical, not essential.

A variation of Sirius, which is not brilliant or very intense, escapes our notice. All the physical world belongs in a certain sense to each of us ; but certain parts of it (not the same for each) belong to us more peculiarly —those whose sense-perceivables can be perceived in greater number and exercise a stronger influence on what is perceived. Therefore we say our (visible) sky, our earth, our sea, our country, our mountains, our town, our parish, our house, our rooms, our furniture, our clothes— all that we commonly call ours—belongs, if it is not perceived, to a zone of unconsciousness which is the more peculiarly ours as the relations between us and the elements included in it are more close.

Thirdly. Each of us has a body. Of the sense-perceivables which constitute it, very few—*i.e.* only some of those which are elements of the nervous system—are perceived immediately. We do not see our bodily organs, and only perceive them confusedly. We only see the outside of our own body as we do in the case of another. And yet we consider our body *ours* in the closest and strictest sense—as an essential constituent of ourselves. No need to say why. Those elements of our body which are, and habitually remain, outside our consciousness are essential to those others which are essential to our consciousness, and a variation of the first can, and for the most part does, determine in the second, and therefore in consciousness, a variation which is much greater in quantity and importance.

That group of sense-perceivables, by which our body is constituted, constitutes, in so far as it is outside our consciousness, the zone of unconsciousness which we can more truly call ours.

Lastly, recollections, when they are not actual (and those not actual are always the more numerous) also constitute a zone of unconsciousness which is ours in the same

sense as our body. A recollection ceasing to be actual (to be in consciousness) cannot have vanished, because in that case that same one could never return, and the fact which is usually called the reappearance of a recollection would be an entirely new fact. Now we have seen that a fact entirely new cannot be a recollection, a thing already recognised and expressed in common language. Recollections do return, re-present themselves; therefore a recollection which is forgotten is not annihilated—it has only fallen from the zone of consciousness into that of unconsciousness, passing, as we can sometimes observe, through a zone of subconsciousness.

A recollection that I forget is as little annihilated as the noise of the train which transports me, a noise which I no longer perceive because I have gone to sleep. But the unconsciousness, in which my non-actual recollections are, is exclusively mine because the recollections which are contained in it can emerge and be included in my consciousness, and in mine only. Whether in any case they can be annihilated is a question which we shall leave undiscussed. The fact is worthy of notice that sometimes, in consequence of a fortuitous concurrence of circumstances, we unexpectedly recollect most trifling facts which occurred long ago and which we had never recollected in the interval.

We have not tried to distinguish all the different zones of unconsciousness or to show clearly their different connections with consciousness, but what has been said will help us to overcome the apparent difficulty that some will have found in understanding how recollections can persist without the subject having consciousness of them and while they are inseparable from the subject.

Whether recollections and representations can finally be resolved into the same elements, under what laws

these elements are variously grouped, and what relation there is between the zone of unconsciousness in which they remain and the nervous system, are questions which we shall leave unanswered.

VIII

What we usually call the present always includes recollections. To see a body well I must observe it for some time, so that the images of its parts may become distinct one by one—one after the other, of course. Strictly only one of these images is present; if they did not all persist as recollections, there could never be one precise vision of the body. Recollections are always associated in the sense-percept to make it a whole. Therefore I go for a walk without being embarrassed by the correlative changing of the images; I see as books the things which appear to me on the shelves by my side, &c. The dog seeks and finds his master, guided by scent. By scent alone? No, but by scent associated with a recollection —in fact he seeks and finds a man, not only a more intense scent. The actual elements presuppose others which are not actual now, but which can become so again by means of recollection. They presuppose them, be it noted, as their constituents, not as simple conditions of existence, not as the son presupposes the father, but as visible extension presupposes light. There can be no present without an essential relation with a past.

Actuality and memory: potentiality and possibility.

To know signifies to remember. A professor mounts the platform to deliver his lecture. He is prepared for it, he knows what he means to say. In what sense does he know it? Has he the whole content of the lesson present in a single act of the thought? Evidently not. Then, in what does his knowledge consist? In

this, that a certain system of judgments is in a determinate relation with the consciousness of the professor, and in virtue of this those judgments will be thought out and pronounced successively and in order.

Similarly, a boy will say that he knows (by heart) quite a long piece of poetry of which he hardly understands a word. He knows the words in the order in which they are written in his book. He knows them, or rather can recollect them one after another, although actually he does not recollect any.

Between the two cases there is an obvious and important difference. The professor in recollecting his judgments and the boy his words are guided, the one by logical relations, the other by mechanical associations. The professor delivers his lecture by reasoning, the boy recites his much in the same way as a phonograph would. However, both affirm justly, "I know what I have to say, what I am going to say." Although at the moment in which he says, "I know," he has not in his consciousness one of the judgments or one of the words which are the object of his knowledge.

Either we have no knowledge at all, or we must say that besides actual knowledge we have also potential knowledge, without which not even the actual knowledge could exist. This "potential" does not mean simply "possible." Not every possibility of mine is a power of mine. None of the houses which I am able to rent is mine in the same sense as that which I have rented. In the same way, it is not the knowledge which I am able to acquire that is mine, but that which I can again render actual because it once was actual—that which I can recollect.

All this confirms afresh and makes us understand better how essential recollections are to the subject.

The identity of the subject consists in the identity, or rather in the permanence, not of what he actually recollects, but of the entire group of his possible recollections—a group preserved in the unity of unconsciousness inseparably associated with the unity of consciousness. It explains further how the subject can guide himself in perceivable reality and represent it to himself, although the sense-percepts are far fewer than the perceivables and are in part different and differently arranged. The laws which dominate sense-perceivables, although different from those of the percepts, succeed by means of representations and recollections in making themselves prevail in consciousness independently of explicit reflective knowledge. At least they succeed enough for conduct to be regulated by them.

IX

A subject who was sentient only, would only be the unity of the sense-perceivables perceived. He would have nothing really his own. His existence could be resolved into a relation between certain elements to which that relation (I do not say every relation) would be accidental. A subject capable of representations and recollections is quite another thing. Representations and recollections are peculiar to a particular subject, because they do not exist sensibly or insensibly apart from it. They presuppose a subject who has an intrinsic existence of his own.

That which is most living in the subject.

But representations and recollections preserve and fix the facts of which they are representations and recollections; they do not change their character fundamentally. Consciousness by means of representations and recollections acquires a stable organisation, but acquires only the organisation. A subject which per-

ceives, and in addition represents to itself and recollects what it has perceived, does not *have* consciousness—rather it *is* only the consciousness of a content. The content is more connected, more organic, less accidentally variable, than if it consisted only of perceivables perceived. But it is always a content of which the subject is simply an indifferent spectator—a spectator forgetful of himself, entirely absorbed in the spectacle.

From the hill where I am lying on the grass I see the landscape before me—a bundle of sense-percepts, made into a whole by a bundle of recollections. Suppose I neither enjoy nor suffer, do nothing—do not even think—my consciousness is occupied entirely by the landscape—*is* the landscape. Certainly, I know well that I am something else, because the landscape which I see delights me, because I do something,[1] because my recollections cannot be reduced to those alone which integrate my seeing, because, even if I do not purposely follow any order of thoughts, I at any rate do think. The supposition is not and cannot be true, but if it were true I should only be a spectator absorbed in the spectacle, indistinguishable from the spectacle, although the spectacle is not a simple bundle of sense-percepts, but a bundle of percepts associated by the recollections which integrate them.

A subject suffers. Suppose that in its consciousness there was nothing but that suffering (let us neglect the impossibility of realising our supposition), this subject could be reduced to that suffering. It would not say "I suffer." Because this judgment implies that the "I" distinguishes itself from the suffering. It may be something of which the suffering is a mood, a state; still it cannot be reduced to the suffering only. Nor

[1] Even if I am lying down, I am not relaxed as if I slept; I contract some muscles, I make some movement.

would it lament—lamentation is a fact of consciousness which differs from suffering.

There is no one who does not recognise this. Such a subject would be less different from what we know it to be than one whose consciousness only included sense-percepts *plus* representations and recollections of sense-percepts, and in short could be reduced to a spectacle. Let us make another supposition—let one of us know that starting from a given instant his consciousness will be reduced either to consciousness of nothing but contents (of sense-percepts and their relative recollections) or to consciousness of a pure and simple pain. Suppose he has to choose between the two destinies. In choosing the first he would seem to himself to be choosing his own annihilation, and in choosing the second he would think he chose his own unhappiness. Our perceptions are an important part of ourselves, but only because we are something else also. A perception which could exist alone would have neither importance nor intrinsic reality. Its existence would be the same as its non-existence. A pain, although it cannot have a separate existence any more than a perception, has in itself, and as such, an importance and intrinsic reality. The perceptive consciousness only exists outside us in the spectacle in which it is absorbed and which constitutes it. That consciousness which is feeling is truly internal; it exists for itself.

X

Insepara-bility of per-ceptions and feelings: activity.

The perceptive consciousness and the feeling consciousness are not separable. There is no content (no sense-percept or representation or recollection of a sense-percept) which is not associated with some feeling; there is no feeling which is not associated with some content. These two forms

of consciousness are really only two forms—two faces of the same reality. The element which connects them, the profound reality which is manifested in each of them, is action.

I awake. Immediately my consciousness is invaded by a number of sense-percepts; I hear noises; in the twilight, I half see some shapes (of walls or furniture) which vary as I turn my eyes carelessly, and so on; representations and recollections arise and succeed each other. Scarcely has the content of consciousness reappeared than it begins to vary. A clock strikes the hour—two o'clock in the morning. I am sleepy—I wish I had not waked so early; I am glad I can stay in bed a little longer. Here are feelings which vary. I close my eyes, and turn over to go to sleep again. This is also a variation but very different from the varying of contents and feelings —a varying which is an action.

There is no subject who does not act. The first and surest evidence of the existence of a subject is given by his acting. Every living cell (and every subject appears first as a living cell) moves. It moves spontaneously—that is to say, in a manner which can be understood, but which is not determined, like the movement of a water wheel, by facts not included in the unity of the cell, external to the cell.

A bird which has not yet learned to fly falls unless supported. The fall is determined by certain laws, and therefore, given favourable circumstances, it necessarily falls. Flight does not necessarily occur in any circumstances whatever, or, rather, it never happens until the bird has acquired certain habits and gained a certain strength. It is the externalisation of an activity which to externalise itself so must have been practised—must have been suitably organised.

It is true that every subject has initially an intrinsic

organisation, in virtue of which it cannot be altogether *ex lege*. A cell which develops itself develops itself always in an organism like that in which it has been formed. We are not discussing whether an organisation or an intrinsic law can ever determine completely every external expression of activity. Certain proof that it is so does not exist, and evidence to the contrary is not wanting. The internal organisation of a subject goes on completing itself in time. Therefore it would appear that it never is—or at least certainly not from the beginning—so rigidly fixed as to exclude all possible indetermination. Be this as it may for the present, we cannot deny that the organisation or the law which is intrinsic in a subject is a constituent of the subject, and that in consequence the variation, determined by that law, is only determined in substance by the subject. Between that variation which is due to what I am, and that which, though due in part to what I am, is also due to laws which unite me to something else, there is a distinction not to be neglected. This is expressed by saying that my first variation constitutes an expression of my spontaneity, an acting on my part.

So the concept of spontaneous activity remains established; and also the fact that spontaneous activity cannot be denied to the subject.

XI

The subject, in so far as its consciousness can be reduced to a unity of sense-percepts even when associated with representations and relative recollections —or rather, we will say, in so far as it only has a theoretic consciousness—only exists outside itself in the image. Its existence consists in the existence of the image. Representations also and

Activity and feelings: relative independence of the subject.

recollections are exclusively facts of the subject. Like feelings and unlike sense-perceivables perceived, they can only be realised in the unity of the subject. But (we are speaking of those which can be referred to the sense-percepts) they are the subjective mirroring of a reality not exclusively subjective. The subject in them and through them is already something in itself, but of an "in itself" all turned outwards, consisting of a reproduction *sui generis* of what is outside it.

In feeling the subject is not turned outwards, but is enclosed in itself. It does not live in anything else—it lives itself. To enjoy, to suffer (neglecting associations with other elements which are never wanting), are forms of consciousness in which consciousness is only in relation to itself, in which consciousness or the subject exists truly by itself, possesses a reality, the concept of which is not the concept of a relation to anything else —an internal reality.

But feeling, although it does not consist in a relation to what is outside, is in manifest dependence on what is outside. The simplest feelings (physiological pleasures and pains) are bound by fixed laws to the sense-perceivables perceived; they are determined by them. So that the fate of a subject which was capable (theoretic consciousness apart) of feelings alone would be in the power of external happenings. The subject would exist in itself, but in a condition of absolute dependence.

The subject, which acts, which makes itself the condition of change—within certain limits—(1) of external reality in more immediate relation to itself, and (2) of its own situation in face of external reality, frees itself, to a certain extent, from the aforesaid dependence. It exists otherwise than as only turned outwards or as only turned inwards. It is an inwardness which makes itself felt as such within and without. Consequently

the existence of the subject has its root in its spontaneity. Not that the other forms of consciousness must be considered only apparent—the appearance of consciousness *is* its existence. But the other forms would not be possible without the spontaneity. They are produced by this, or result from it, as we shall briefly show.

We understand that both feelings and actions have representations and recollections, and representations and recollections have the same conservative and organising function on feelings and actions which we have mentioned in reference to theoretic consciousness. The unity of consciousness in each of its forms, and the unity of all these forms together, are not possible without this function. Therefore feelings also and actions are connected with the unconsciousness peculiar to the subject, and presuppose it. A feeling—so we have said and repeat—has no existence except as actual. But we can remember having had a feeling of such and such a kind without its being therefore necessary to experience actually a similar one.[1] And every feeling has relations sometimes quite evident, to unconsciousness. For instance, a man will experience a feeling of irritation or of mortification due to a circumstance which he does not recollect, and which he forces himself not to recollect because he knows that the recollection would intensify the actual feeling. It is impossible to deny that that irritation and that mortification are connected with something that is not in consciousness.

As to action, we must reason in quite another way. We act both consciously and unconsciously. And there is an infinity of different grades of consciousness between the most clearly conscious action, volition, and the less

[1] An actual similar feeling would be in every case a new fact, numerically distinct from the first, not the representation of the same one.

conscious and the most unconscious. Our body is a storehouse of energies which find expression in great part—some always, others usually—without our consciousness, or only with a consciousness quite different from that of an action of our own. For instance, when one of my muscles is contracted under the action of a stimulus, even though it be within my body, I have cognitive consciousness, associated with a pain, of the contraction and the consequent movement, but not the consciousness of my having acted. Many, however, of the energies latent in the organism which are generally unconscious can become conscious in such a way that their self-expression constitutes the consciousness of an action. In these cases we say that our vigour has increased, and it has really been increased by elements that have become conscious from being unconscious. A man accustomed to stop before every little difficulty, becoming suddenly involved in extraordinarily difficult circumstances, can sometimes (the case is rare, but not unheard of) find the energy to make up his mind to act like a man, only perhaps to fall back afterwards into his wonted apathy.

XII

Activity could never be developed in a consciousness that was exclusively theoretic. On the other hand, it is not difficult to comprehend how a practical consciousness must in virtue of its very activity enlarge itself and include sense-percepts.

Activity and perception as conditioning each other.

The expression of activity is always, in a great variety of grades and modes, limited, disturbed, and hindered from coming into conflict with facts which may or may not be expressions of other analogous activities, but which on the whole are not essentially different

from them. At a given instant a subject might give expression to the fact A. The fact B, extraneous to the consciousness of the subject, limits, disturbs, and hinders the expression A. This interference of B with A is an inclusion of B in the consciousness of the subject. This is pretty much what takes place in sensation.[1]

That such an inclusion takes place—neglecting all particulars—in the manner indicated is incontestable. If reality did not limit, disturb, and hinder our spontaneous actions, we should never recognise external reality. Our apprehension of it is not our being disturbed—it consists in perceiving certain perceivables and including them in our theoretic consciousness; but the perceivables come to be included in our consciousness (which so becomes theoretic) because they interfere with, and disturb, our action.

An activity which did not express itself, which did not act, would not really be activity. It is incredible that consciousness is at first only practical, and afterwards enlarges itself and includes a content. The self-expression, essential to the consciousness being really practical, is at the same time an inclusion in that consciousness of the sense-perceivables which are perceived. Activity and receptivity presuppose and condition each other. There is not *first* a subject whose consciousness *then* enriches itself with contents. The existence of a subject as a centre of activity and the existence of that same subject as a centre of theoretic consciousness is the same thing. It is superfluous to note that the first secure evidence of the existence of a subject, if it is the manifestation of a spontaneous

[1] A psychological doctrine as to exactly how, in what conditions, and under what laws, the consciousness of the subject includes in itself elements which were extraneous to it, but which must be capable of inclusion in it, would be out of place here. We are not concerned with the "how," but simply with the fact.

activity, is at the same time the manifestation of the activity of a body—of the body of the subject. And the consciousness of the subject, as a unity *sui generis* of some sense-perceivables associated with others in the physiological unity of a body, is always theoretic; while, as the unity of the energies developed by that body, it is at the same time and *eo ipso* practical.

The theoretic consciousness cannot be an absolute creation of the practical one because each presupposes the other. And the aptitude for recollecting, as we have already noted, is not producible in any way. It is necessarily a characteristic of consciousness: it is theoretic and primitive. We have only proved, and have only wished to prove, one thing—viz. Activity, although the existence of a first nucleus of it requires the coexistence of a nucleus of theoretic consciousness, and gives rise itself in its self-expression to the development of the subject. It does not create the theoretic consciousness, but every further enrichment of this and the successive complication of the subject are results of activity. If this were suspended, all the external conditions favourable to the enrichment of the theoretic consciousness would be in vain.

XIII

The three fundamental characteristics of the subject.

The subject is, then, *principally* a centre of conscious activity. Principally, but not solely, even in the beginning. With the practical consciousness a theoretic one must be associated from the very first. And the unity of these two elements is not yet sufficient to give us an adequate concept of a real subject, no matter how embryonic. The subject is capable of feeling, or rather feeling is essential to it, because a subject without

feeling would care nothing for itself or anything else—such a subject would have no existence for itself, would not strictly exist at all. Now feeling, like activity, and like theoretic consciousness, is not derivable from anything else; it is not producible in any collection of facts which does not already imply it. We must, then, recognise three characteristics in the subject—activity, theoretic consciousness, and feeling. Three characteristics, not three things each of which can exist alone and which unite to constitute the subject, but three characteristics essential to the subject, inseparable from, and irreducible to, one another. Between activity and feeling there is a relation similar to that between activity and theoretic consciousness. The transformations of feeling and the formation of new feelings are the results of activity (and of its association with the theoretic consciousness, but the transformations of this are in their turn the results of activity). On the other hand, activity could not produce those results, nor exist at all, if it were not from the beginning associated with a feeling and one with it.

I shall not say that it is necessary to the subject to act in order to obtain pleasures and avoid pains. The movements of a new-born child are without any purpose—and we who propose ends to ourselves propose some that are quite different from enjoying or not suffering physiologically. But the new-born child would not move, we should not act, if the movement were indifferent to him and the action to us. An indifferent activity would only be a cause; but a simple cause—let us even suppose a cause which recognises its effects without caring about them—does not correspond with what we know and can reasonably deduce about the activity of a subject. A subject which cares nothing about what it does is not a subject which acts. Remove

the *part a subject takes* in its actions, and these can no longer be called *its* actions. They will be reduced to a natural happening (physical or physiological) associated with the subject.

The further effects of an expression of activity depend in general on the internal organisation of the subject and on its relations with its surroundings. The expression by itself and as such is pleasing, or, in a complex subject and for a certain kind of expression, satisfying. But it is always associated with a pain. Activity, in fact, cannot express itself except by interfering with some other fact, overcoming an obstacle, reacting against a stimulus. And the obstacle and the stimulus hinder, limit, and disturb the activity which overcomes or reacts, and in this way expresses itself. The consciousness of the hindrance is by itself, and, as such, displeasing. The unpleasantness of the disturbance and the pleasure of the expression are, then, inseparable. There is an evident instance of this in play—satisfaction and disappointment are not only here associated, but they condition each other. Take away the one, and the other vanishes. And, on the whole, it is so everywhere and always.

I say in normal circumstances, and neglecting the transformations which the feelings undergo in consequence of the complication of the consciousness—in particular of the intelligent consciousness. A leg which I break gives me pain with which no pleasure is associated. But among the ends foreshowed in my psycho-physical organism there is no breaking of a leg. It will be said that this pain is not due to a disturbance of activity produced by an obstacle. The unpleasantness which I experience at having to interrupt my occupations, and stay in bed for a month, is quite different from the pain under discussion. I answer that the leg is broken precisely

because it encountered an obstacle which has disturbed not so much my conscious activity (though this also, all but its disturbance, is an unpleasantness and not a pain) as the unconscious energies of my body, which, being disturbed in that way, have reached consciousness. If anyone is not contented with this explanation, let him find a better one. From my broken leg, or from the unpleasantness and from the pain which are consequences of it, I can derive good—moral good, for instance. And this costs me a painful effort. But here we should be entering on those complications which for the present we have decided to leave on one side.

CHAPTER IV

COGNITION

I

THE subject succeeds in forming for itself a general representation of that part of external reality which most nearly concerns it. It succeeds in the first place because the reality, a small part of which is included in its consciousness, is orderly in its existence, and in its varying. In the second place, because it recollects and imagines, connecting and integrating in this way the present with the past; pressing forward also into the future with its aspirations, fear, and desire. In the third place, because it acts. Let us delay a moment over this function of action.

How the consciousness and unconsciousness of a subject become organised.

The consciousness which the subject has of its movements, associated with external sensations, and with recollections of external sensations and of its own movements, ends by drawing a distinction among the variations which take place in the perceivable content. Some are apparent—that is to say, are only due to the movements of the subject, and vanish if the body or the part of the body that has been moved resumes its former position. I no longer see the inkstand because I have turned my head or shut my eyes. Others, on the other hand, are real; they happen without the subject moving, or following a movement (associated almost always with a sensation of external resistance), but in such a way that they do not vanish if the body of the subject

resumes its original position. I perceive a bell ringing. I change the position of a book. Of real variations some are independent of the subject, others determined by him.

While in this manner the collective representation of external reality becomes orderly, clear, and fixed, the same takes place for internal reality. In the organism of consciousness the sense-percept represents in some way the solid bony framework round which the other elements are grouped. That the comparison must not be taken too strictly appears from what has been said. The recollections and the actions (exclusively facts of the subject and therefore internal) are also orderly, or it would be impossible for the whole to reach any stable organisation. But we understand without need of further explanations that there is truth in the comparison. Gradually, as he finds his position externally, the subject does so also internally. Recollections and images reproduce by preference the most important facts—that is, those associated with the most vivid feelings; and the feelings (hence also desires and fears) adapt themselves to the environment, to the reality represented. Activity develops in correlation with the feelings and with reality. The subject which has found its true position withdraws itself from difficulties, expresses an ever more orderly activity.

Activity is practical; it tends to procure the good and to remove the evil—such good and evil as the subject is capable of desiring or fearing. And in a subject which has no gifts superior to those with which we have hitherto supposed it provided, it is directed towards the external world—for instance, towards the obtaining of food. Even flight from an enemy can be referred to something external—the enemy. But to obtain a certain result operating on or in external

reality, that representation of external reality of which the developed subject is in possession is insufficient. A clear and distinct representation is needed of particular parts of reality, of this or that determinate thing. The activity which expresses itself, not in an immediately practical sense but to obtain a clear and distinct representation of a part of reality—an end which serves as a means to the practical end, but which must be distinguished from it, and which we can therefore call theoretic—is attention.

Under the pressure of practical needs, the animal is not content with seeing; it looks. Moving the eye or the head or the body, it acts so that the image may be formed on the point of the retina where vision is clearest. It proceeds analogously for the other senses. It assumes on the whole as a subject, an attitude, external or internal, which makes the thing occupy the field of consciousness; it concentrates its consciousness on the thing. The attention—even that of the man who reflects on abstractions—is manifested externally by the behaviour, and can make the most intense sensations fall into subconsciousness.

A sensation or feeling can be so strong that consciousness remains dominated and occupied by it: this is not a case of attention. True attention is always an action, the expression of an activity which, although it is not an element separable from the others, is still always a distinct element. A desire, a purpose, determine by means of their connections with the other constituents of consciousness and unconsciousness a change by which the consciousness of the thing becomes clearer and more distinct. Although the things to which we do not attend fall therefore into relative subconsciousness, nevertheless attention to one thing does not always consist in driving the others into subconsciousness, or,

rather, perhaps it can never be reduced to this. Attention, for instance, always calls up recollections which have a closer relation to the thing in that particular complex of circumstances. Attention is, in short, an action—an action which is a useful, an almost indispensable, antecedent of practical action. And not rarely it is itself practical, and modifies the thing. If I concentrate my attention on a body, I take it in my hand, I turn it about, I bring it close to me, sometimes I break it. Brute beasts also sometimes do similar things.

How far attention is important in organising consciousness (and unconsciousness) there is no need to discuss.

II

With the development of which we have given a brief summary, consciousness remains a simple consciousness of facts, of concrete things. The laws which regulate the facts are only implicitly included in it.

Order of consciousness and consciousness of order: cognition as consciousness of a relation. The double problem of cognition, subjective and objective.

The consciousness of the subject is orderly. The elements from which it results are not only regulated by the laws which connect them with a vaster whole, but thanks to their interference according to those laws, and to an intrinsic[1] principle, they constitute a whole which is orderly in itself.

The subject has a faithful image of surrounding reality. The approach and variation of sense-percepts are not identical with the approach and variation of the perceivables, but, integrated by representations and recollections,

[1] The subject, as we have noted, is not reducible to the unity of elements which are independent of it.

they suffice for the subject to find his true position in the external reality around him. Reality presents itself in an order to which there is a corresponding internal order of psychical phenomena peculiar to the subject. The subject can generally act so as to preserve himself for a time in a tolerable condition.

But the order of consciousness is still not the explicit consciousness of the order. A subject has an expectation which is realised. His consciousness is ordered. It is the implicit consciousness of an order, of a law. But the law is only included in consciousness implicitly. The expectation is realised because a law is valid. In the circumstances one fact always succeeds another after a determinate interval. But the law is always valid provided that the first fact occurs in those circumstances. The expectation, however, refers to the actual case, and is itself only an actual psychical fact.

Can there be consciousness of a law?—of a relation *qua* relation? Between two concrete things there is a relation. Supposing the two concrete things are both included in the consciousness of a subject, they will be included in it not as detached from one another, but as connected with one another. The relation will be in consciousness in so far as the concrete objects are in consciousness—as realised in that case. But the *same* relation can exist between two other concrete objects. Its character of relation, its existence as relation, consists in this—that there are two presupposed concrete objects, any two whatever among certain concrete objects, not just precisely those two of which we have consciousness. All stones fall unless supported. At this moment I only see the one fall from which the support has been removed.

The consciousness of a law or of a relation can and does exist. It constitutes cognition.

In reference to this we must distinguish the laws

which are valid for all that exists or happens, and the consciousness that certain subjects, *i.e.* men, have of the same laws. The laws are truth, objective and knowable. Certainly a law which I know is not something exclusively belonging to me who know it—the same may be included in my consciousness and in that of any other man. In this aspect laws are analogous to sense-perceivables. But they are not sense-perceivables or concrete objects of any sort. There are some which are valid for sense-perceivables (for instance, the laws of gravity), there are some which are valid for facts exclusively individual (for recollections, for instance), and there are some which are valid for all concrete objects without exception. They belong in a certain sense to the field of reality, and yet they are not concrete elements of reality. Evidently a problem arises here—the problem of knowledge considered objectively: how we should conceive reality, in order to comprehend its being dominated by laws. A second problem is the following: in what way the consciousness of a subject can include laws. This is the problem of consciousness considered subjectively, psychologically—the problem specially of cognition. We will discuss this first; for the other we must refer to the chapter on Reality and Reason.

III

It will be said that the second problem (which alone we propose to solve for the present) should be excluded both from the theory of knowledge and from philosophy—that it is, precisely as we have said, a psychological problem. And it will be doubted (some will not content themselves with doubting) that, in treating of this problem first, and even more in having thus divided into two the problem of know-

Discussion of the preceding distinction.

ledge, we are assuming a presupposition implying a preposterous and erroneous solution of the problem of knowledge. We must show that there is nothing presupposed or prejudged.

The truth which I know—say a physical law or a geometrical theorem—is not a fact, and hence is not a fact exclusively, or not exclusively, mine. It depends neither on me nor on any circumstance of fact, and psychology has therefore nothing to do with it. But my knowing the truth is a fact, of which I could also say when and under what circumstances it is realised. And it is one which can also vanish. I could forget the truth so as no longer to be able to say that I know it. The truth can be known by anyone, but it cannot be said that it is known by all who can know it. There was a time when Pythagoras alone knew his celebrated theorem of which many are still quite ignorant. In consequence *some* distinction must be made between a problem which concerns the truth and a problem which concerns the cognition of it—the inclusion of the truth in the consciousness of a subject.

But, they insist, truth does not and cannot exist except in so far as known. A judgment, for instance, that eleven is a prime number is true. It is impossible to conceive a truth that is not the truth of a judgment. And a judgment always implies a subject. A true judgment is true for every subject, but from this just reflection we must deduce the consequence that follows legitimately from it. The Ego which judges (or in so far as it judges) is not to be confounded with the one which "eats and drinks and sleeps and wears his clothes," operations which have nothing at all to do with judgment, with truth. The Ego which judges is one and the same in all the individual subjects there are, distinguished from one another by peculiarities which have no

value in reference to the cognition of which we are speaking. The unity of this Ego is the true solution of the difficulties which you erroneously solve with the hypothetical and inconceivable assumption of an objective truth. It is the problem of knowledge, it is not divisible into the two which you have formulated, nor does it admit in any way of a psychological treatment.

The objections which I have mentioned, whose intrinsic value I am not for the present discussing, go beyond the mark. On the distinction between a problem of truth and a problem of cognition, I have made no precise affirmation or assumption. I said "there is *some* distinction," and that there is cannot possibly be denied, inasmuch as a judgment may be true even if someone is ignorant of it or denies it. We are trying to discover what the true distinction is. There is nothing to prevent the investigation resulting in the recognition that our opponents are right. Let us suspend our assent for the present, because we cannot for the present attribute a precise meaning to their words.

Certainly a judgment pronounced by me, not referring to elements of fact exclusively mine, if it is true, is true independently of every fact exclusively mine: it is true for everyone as for me. This is the objectivity of truth which we must try to interpret. But it is not right not to state as a warning that the consciousness of the judgment is *one* with the consciousness of the other facts peculiar and also not peculiar: sense-perceivables perceived. The circumstance that these are of no consequence with regard to the judgment does not cancel the fact that they are included with it in one and the same consciousness. Each one of us affirming—as each does affirm, even when prejudiced, provided he be not under the sway of his prejudice—that the judgment is pronounced by

him signifies that the judgment is included in that same single consciousness in which there are also included certain sense-perceivables perceived, and certain recollections, feelings, &c. And there is no judgment that is not pronounced by someone, that is not associated with elements of fact. So that though it may be true that to consider a judgment under the point of view of the truth we must abstract from the elements of fact which are associated with it in the unity of a consciousness—to call *subject* (in a universal sense) what remains after having so made abstraction is premature so long as we have not discussed the nature of what remains, or so long as the other investigation which we propose to make is not completed. The investigation may give what results it will, meanwhile we note that the new meaning attributed to the term subject differs from the usual one. So much so that it may be doubted whether it is not perhaps an abuse of language to use the word.

To sum up. That the judgment is always associated with concrete objects in the unity of a consciousness is a fact, a real fact, although the associated concrete objects, which vary from man to man, and in time vary in the same man, are extraneous to the truth of the judgment. Let us try to see how this fact is possible. In what way can elements of fact and elements which are not of fact be included in the unity of the same consciousness? In making ourselves comprehend the *fact* of cognition, the solution of this problem will enable us to understand better what we have called objective truth.

IV

In order to know, I must judge. I must affirm or deny. Let us consider affirmative judgment first. It is I who affirm. "I affirm" means that a certain fact happens in that unity of consciousness which is myself. It happens in so far as it is accomplished by me. It is not something which comes from outside to be included in my consciousness. Affirmation is an action, an action *sui generis*, which does not modify the concrete objects of which I have consciousness, but by means of which I make myself conscious of an intrinsic organisation of the concrete objects. By affirming, I render explicit to myself an order which in my consciousness, as a consciousness of concrete objects, is implicit, but implicit only.

Judgment as the formulation of a law. Reality is known so far as it is an element of the subject.

For instance, an orange is presented to me. I see it clearly. I touch it, and perceive its fragrance. I could peel it, divide it into sections, and eat it, so procuring for myself certain other sensations associated with the first. I expect these other sensations which I do not actually experience. Even a brute beast, to which oranges are no novelty, and which eats them willingly, has a similar expectation. But I say, "This is an orange." No longer have I only an expectation, I have formulated a law. Certain sense-perceivables actually perceived, and certain other sense-perceivables actually not perceived, form a group, so that if certain conditions are realised (the peeling of the orange, &c.) the second will succeed to the first. This is the meaning of that judgment—a law which in the expectation was only implicit, has become explicit.[1]

[1] That the judgment may be untrue, that the body which I believe to be an orange may only have the external characteristics of one, is

I judge in so far as by means of my activity, of the activity which is myself, I transform an expectation into a law—I extract the law from the expectation which included it. The expectation which I transform is also mine, included with the activity in the same unity of consciousness, in that same unity of consciousness in which there will be included also the result of my action,—the judgment, the law, the cognition. Hence the consciousness of concrete objects, although it is not cognition, is not, however, different in kind from cognition, as, for instance, matter would be if matter were something extraneous to consciousness. The consciousness of concrete objects is implicit cognition which to become explicit requires only an external expression of the subject's energy. Evidently, as we have already said, the consciousness of concrete objects is implicit cognition because it cannot be reduced to the concrete objects of which it is the consciousness, but possesses an intrinsic organisation of its own without which, besides, it could not even be the *one* consciousness of the concrete objects.

Concrete objects are usually considered as the given data with which we construct cognition. Certainly without concrete objects there is no cognition. This, in fact, even in its most abstract forms, refers always to reality, is cognition of reality. In reference to the cognitive process the concrete individual objects, which are in particular the object of study, can be considered as given (in the way, to use a rough comparison, in which stones are given to the bricklayer), or as elements *per se* extraneous to the process, but invested by the process as it were with something from outside, so that they become arranged and assimilated. But this relation

irrelevant. Not every law which is formulated is true, but a judgment is always the formulation of a law.

between cognitive process and concrete objects is possible only because the concrete objects form a part of that intrinsically organised whole which is the real consciousness of concrete objects, in which are included also the acts from which the process results. Concrete objects which were in truth simply *given*, one by one separately and without any essential relation to the process, could never be utilised by the process. The consciousness of the concrete objects *plus* its own organisation, intrinsic though only implicit, is fundamental to the process and its condition *sine qua non*. And the consciousness with its ordered complexity is not a thing *given* for the cognitive process: the cognitive process is the development of the consciousness, and the cognition is the result of its development. It is the transformation of the consciousness of concrete objects into consciousness of itself.

One other observation, also quite evident. The subject never knows anything other than itself. This does not mean that its cognition is enclosed in the limits of what is exclusively peculiar to the subject. The subject knows the universe, but only in so far as the universe is enclosed in the subject. I see bodies—I touch them, &c. That is to say, sense-perceivables which are not exclusively mine are included in my consciousness, or become elements of me. I know that bodies and other subjects exist, with certain properties, independently of me—that such and such facts happen according to certain laws. That is to say, I render myself explicitly aware of an organisation which is implicit in my consciousness. I know the universe in so far as I render myself fully conscious of myself. For the universe is no less a part of me, than I of the universe.

V

The distinction of the concrete objects.

I see a body—for instance, this sheet of paper. I see it along with other bodies, among which it occupies a determinate situation. Also if, instead of seeing it, I represent it to myself, I always represent it to myself in a determinate position among other bodies. I also consider it as something with a separate existence which can assume very different positions among any bodies whatever. I consider it so because my consciousness does not remain always in the state in which it is when, at a given instant, I see (or represent to myself) the sheet of paper.

I see that sheet of paper now here, now there, among certain bodies or among certain others. Always in an environment, but in an environment which is never the same. And this variety of seeings has had as its consequence the imprinting on representations of a movement which persists. The representation of the sheet of paper is always associated with a representation of environment, but the representation of environment with which it is associated is not fixed (it may be so in certain cases which do not concern us now). In the series of representations which succeed each other, each of which contains the sheet in a determinate environment, something fixed (or relatively more fixed) succeeds, as such, not in separating itself, but at least in distinguishing itself from the variable remainder (relatively more variable).

The existence of the representation of the sheet of paper, the meaning of the phrase "this sheet," consists in the distinction that we have mentioned.

Everybody that I see (or touch, &c.), I consider at

once and without hesitation as a body. But because the process by which my consciousness is organised is no longer in its first phases, I assimilate the new experience promptly like food, because it, like the food, finds an organism ready for the assimilation. Let us not delay on this point.

One thing must not be neglected, because if we neglect it we cannot understand anything further. The organisation of consciousness consists, not in assuming consciousness to be a fixed structure, like the structure of a crystal, but in a movement which has commenced, a process which continues to develop itself incessantly in accordance with certain laws. So for an illustration, which is not only an illustration, the life of an organism does not consist in its structure in so far as it is fixed, but in its functions, which resolve themselves into an incessant variation in accordance with laws. If we neglect the ordered succession and connection of representations or an uninterrupted developing process in which and by means of which certain elements relatively more fixed become distinguished as such from certain others more variable and more irregularly variable—even the commonest and easiest distinctions, between the book and the bookcase, between the man and his clothes, become guess-work.

In the process an important function belongs without doubt to the attention. The things to which we attend are perceived with greater clearness. The representations which are there are stronger, and become stronger still if we attend to them when they are represented. Suitably directed attention can also determine their representation. Consciousness would not organise itself unless it was active, and the manner in which it organises itself depends, on the one hand, on the manner in which it develops and gives expression to its own peculiar activity.

On the other hand, it depends on things. My inkstand is a distinct fact in my consciousness, but not in mine only. I distinguish it because I act, but my acting would not distinguish it if the inkstand were not distinguishable—if there were not outside my consciousness a formation, certainly not separate, but real. With the objective conditions required in order that my personal consciousness may arrange or constitute itself, this is not the place to deal. Evidently, however, the objective conditions alone are insufficient. A reality exists. Also a subject knows something of it. In what we have said we sum up what is essential among the conditions which a subject must satisfy to know anything of it.

VI

The abstract: the concept.

I can distinguish a body from its environment, though I cannot see it or represent it to myself without an environment. In the same way I can distinguish in a body its colour, or other determinate characteristic, although the colour is not visible or representable alone. In particular I fix my attention more intensely on the colour alone. It will happen that the colour is remembered more firmly than the other characteristics to which I have given less attention—than the shape. In the recollection the colour is represented the same (let us suppose this—the supposition is realisable when we are dealing with other than old recollections), but not the shape. The colour is always represented as associated with a determinate shape, but the shape, not having been fixed by attention, varies more or less from one moment to another. I recollect the colour, but not exactly the shape. This persistence of the colour while the shape with which it is associated

varies, distinguishes the colour from the shape, and gives it a relative independence.

I distinguish the colour of one body, that of a second, that of a third, &c. And now that I have in my consciousness a series of colours—each of which is associated with other elements, but distinct, fixed by attention—I can institute a comparison between the colours of the series. To distinguish firmly the colour A from the colour B, it is or is not needful to fix my attention also on the other elements with which each is associated. In the first case the colours are the same, in the second they are different.

First let the colours be the same. The expectation arises that some other body, of a colour the same as those observed, may present itself. The expectation may arise even after we have seen a single body, and distinguished its colour. Because the result of distinguishing the colour, of fixing it by attending to it, is to associate it with a multiplicity of other variable elements (other shapes), and so to dissociate it from those with which it was associated in the perception. This fact of its no longer being associated with a determinate shape, &c., while it must be associated with some shape, constitutes the expectation under discussion which will besides, with the observation of more and more bodies which have the same colours, be greatly encouraged and converted into a lasting formation. On the other hand, the same observation facilitates the work of the attention without rendering it superfluous—to detach with the help of recollection one characteristic (the colour, for instance) from that indivisible bundle of characteristics which is the concrete object.

Let the colours be different. We can content ourselves with noticing the difference, but we can also, follow-

ing in substance the same process, recognise an identity and a diversity of characteristics between the colours.

A red that I see, or of which I have the representation at a given moment, is always a determinate red. But the recollection of it is always more or less variable. To a seen red there corresponds not one single representation, but a group of many different associated representations which succeed each other and present themselves one after the other without my being able to say which constitutes the precise recollection. The same group of representations corresponds to a second red which I have seen. Are the two reds the same? They both correspond to that group of representations. That is all I can say, depending on what I recollect. And in this consists my recollection that the two colours are similar, that they are two reds.

What has been said of *red*, can be said also of *circular*, *orange*, *suffering*, &c.,—concepts that are certainly not things, but characteristics of things, characteristics that may be common to as many things as you will.

VII

I can never separate one thing from every other. But I can often separate it from one other, or from a group of others—separate it practically, so that in sensitive consciousness, mine or another's, the thing no longer forms part of the group. A piece of furniture may be carried from one room to another; a sheet of glass may be broken, and the pieces scattered. We cannot move Sirius from his place and put him in Ursa Major, because we are not strong enough; the moving of Sirius is representable and no doubt intrinsically possible.

Psychical processes conditioning abstraction.

One characteristic cannot be separated from certain

others either practically or even in representation. A colour whether seen or represented must have a shape.

A characteristic is included in the sensitive consciousness or in the actual representation. If I had no consciousness of any characteristic of a thing, I should have no consciousness of the thing. But it is not distinct. It forms a group with others, because in itself, as that determinate element of fact, it is indivisible.

However, consciousness is not only the receptacle of certain things and certain representations. It is variable and active. It gives rise to a process by which one characteristic is associated successively with a variety of others—a colour with a variety of shapes. By this process it is made possible for the activity to attend to the characteristic which remains fixed, to distinguish it among the associated variables.

In expressing itself as attention which distinguishes —which makes use of a process, or, rather, which assists in producing it and rendering it an efficacious instrument of distinction—the activity is guided by a practical intent. A sheep distinguishes green (that of the meadows and fields); it has formed for itself, in its consciousness, a group of similar representations, a group which is not an inert aggregate of invariable things, but a living organism whose existence consists in the incessant development of a process. The group has constituted itself in preference to many others, and has established itself in consciousness on account of its practical value because associated with the requirement of food.

The group being constituted, let the sheep perceive something—a bundle of grass. The thing by its characteristic of being green is assimilated by the group, which is not a dead content but an organism. The assimilation is not to be compared with the casual

addition of a pebble to a heap of pebbles; it is due both to the affinity between a characteristic of the thing and the group of characteristics, and to the attention of the sheep. The assimilation consists in the distinction of the characteristic of green. The sheep sees also the shape of the bundle, but does not distinguish it because it is of no importance to her. The sheep does not say, "This (the bundle of grass) is assimilated by that (the group); this is green." To say this, it is not enough to distinguish; we must render an account to ourselves, acquire reflective consciousness, of the distinction observed.

In man the distinctive processes receive a greater stability—the stability of an organism, not of a stone—from their association with speech. If not associated with the process, speech would have no meaning at all. But the processes tend to intertwine with one another, in virtue of those same relations that, if each preserves a relative independence, make them elements of a bundle, of a well-arranged consciousness. The greens resemble each other as greens, but the colours resemble each other as colours, and colours, sounds, &c., resemble each other as sense-percepts. Something is needed to keep one process distinct from another, and to imprint on each a characteristic of determinate unity. Language by associating a determinate word, always the same, with a determinate process, and different words with different processes, performs this function—a function indispensable in all those cases, and they are far the most numerous, in which the precise and imperious pressure of an immediately practical requirement is absent.

The subject is enabled to distinguish in things the characteristics that cannot be separated from them by means of processes, but only because things do not exist at all apart from each other in absolute separation.

This book is not that book, but they are both books. In concrete objects there is always something in common. That cognition has objective conditions, without which the subjective would be inefficacious, or rather would not exist, cannot be denied. But we cannot deny either that it has subjective conditions. The cognitive processes are peculiar to the individual subjects, although the results are not peculiar. To study cognition, without troubling about how the determinate subject succeeds in obtaining it, is not to make a complete study of it. The consciousness of the determinate subject is concrete and of concrete objects. It would seem that non-concrete objects could not be included in it. Here is a problem needing solution. For those non-concrete elements which are the characteristics of things, we have solved it.

VIII

To reconstruct deliberately a system of elements, that is the way in which we can make ourselves aware of the intrinsic arrangement of the system, of the relations and laws which connect its elements. The exact reconstruction of a limited system is not possible, strictly speaking. Every system is connected with others. Between the relations which are intrinsic and those which are external to it, there is no clear-cut distinction—the one set run into the other. Every limited system is part of a more extended and more complex system, and this of another, and so forth. In the end, a limited system is part of the universe, and we cannot make ourselves thoroughly conscious of its intrinsic arrangement unless we make ourselves conscious of the universal arrangement. The cognitions presuppose each other to some extent. No one is complete and absolute cognition

Cognition as the intentional reconstruction of a system of elements.

apart from others. To possess one of them fully we must possess them all. The reconstruction therefore is never finished, but this does not mean that it is useless to attempt it. Doubtless the universe is one, but not to such a degree that none of its parts are relatively independent, knowable independently to a certain extent. From an approximate cognition of the parts one attains to an approximate cognition of the whole. This renders possible a more approximate cognition of the parts, whence we obtain a more approximate cognition of the whole, and so on.

The reconstruction of which we are speaking differs from a real construction. In order to know, operations must be completed which in their characteristics do not differ from practical operations, a physical experiment, a chemical analysis or synthesis, &c. But essentially our action which gives us cognition, or which constitutes it, had representations for its material. It is true science is only occupied with universals or with concepts, but its scope is to know reality. The concepts are characteristics of concrete objects, and are considered as such. They are characteristics each of which can be common to an indefinite number of concrete objects, but always characteristics of concrete objects. And the subject has no consciousness of them except in so far as it has consciousness of the concrete objects—a consciousness itself concrete. The cognitive reconstruction is always exercised therefore on concrete objects, on sense-perceivables perceived or represented. But the sensitive and representative consciousness is simply arranged; we reconstruct it in order to arrive at an explicit consciousness of the arrangement. The existence of an arrangement, of relations, of laws, is referable to the characteristics of the concrete objects. Therefore we are working on concrete objects with regard to their

characteristics to make evident something which is not concrete and yet is in the concrete objects.

We have seen how consciousness of the characteristics is acquired. And it is easy to recognise that such consciousness is consciousness of relations, of laws. To distinguish a characteristic is to pass beyond the self-contained concrete object, to arrive at something through which the one concrete object passes into another and connects or identifies itself with it. The place which is now occupied by one body can be occupied by another, in the interval in which one fact happens others happen, and so on. The distinction of concrete objects enters therefore again into the reconstruction of which we are speaking. It is always in substance one and the same process. The two phases which we distinguish in it can be so distinguished, but they are not irreducible, and they mutually presuppose each other.

IX

The consciousness of a characteristic, we noted, is always the consciousness of a process. A characteristic is not a thing which can be considered as the immovable content of an immovable consciousness, as is, for instance, a content of sensation or representation. The existence (in my consciousness) of a characteristic is not comparable to the existence (in my body) of a bone—for instance, of a shin-bone; but rather to the circulation of the blood, or to breathing. The distinct characteristic exists in so far as it is distinguishable—a vital function in action, not a thing which serves life without being life.

Elucidation of the same argument.

We must not allow ourselves to be led into error by the manner in which we ordinarily speak or think. The use which we generally make of words (even in

speaking within ourselves, *i.e.* in thinking) is symbolical. We make use of words, as in Algebra we do of other symbols, without rendering their meaning explicit. Some representations associated with them help us, it is true, to use them correctly, but these have only a symbolic value themselves. Therefore it is easy to delude ourselves, and to confuse the consciousness of the symbol with that of its meaning, to take the word "red" or the determinate representation accidentally associated with it for the concept (for the consciousness of the characteristic). The fact is that the symbols would serve no purpose and would not exist if there were not the possibility of rendering their meaning explicit. And when we wish to render their meanings explicit to ourselves, we only reproduce the processes of which we have spoken before.

The same may be said of the consciousness of a relation, of a law, as of the consciousness of a characteristic. I cannot see or touch a relation, nor represent it to myself as I could a thing seen or touched. I become conscious of it in so far as I rearrange, with a conscious action on my part, certain elements which are arranged in my consciousness, which constitute a system—elements which I take one by one, recomposing intentionally the same system. To complete this work of reconstruction, I must bend my activity to the law of the system or of the bundle (of the thing or of the group of things) which I am reconstructing. I must remake on my own account in the field of my representations what is already made in the field of reality—of a reality included in my consciousness.

In this bending, this adapting to an arrangement, the activity of which I am conscious, consists my being conscious of the arrangement. The intrinsic arrange-

ment is a concrete object; the arrangement of several concrete objects constituting a system or group of any kind is implicitly in my consciousness since that concrete object or group of concrete objects is in my consciousness. The implicit consciousness which I have of them becomes explicit through this, that the arrangement comes to be established by me in consequence of my action. It is the arrangement by which certain actions of mine develop, succeed each other, and are connected together, and I know that they develop, succeed each other, and are connected together because I deliberately make them do so in that way.

There was here a red cardboard disc which is here no longer. It has been taken away or destroyed. I wish to replace it. It was made of cardboard. I take a piece of cardboard. It was a disc. I give the cardboard the shape of a disc. It was red. I dye my disc red. I have consciousness of what I am doing, have I not? Well, if, having or not having the thing under my eyes, I say, "This is (or was) a red cardboard disc," I rearrange my representative consciousness exactly in the same way in which, in the case of making it, I have rearranged my sensitive consciousness. I also perform the same acts, with this difference, that, in making it, others must be associated with them, and these produce certain results externally.

X

I say "This is red." Naturally I know already what "red" means. But it is also true that I have learned the meanings of the words by speaking, *i.e.* by judging. There is no need to confuse the first learning of a language with later learnings. One who already knows how to speak learns a

Relations between judgments: error.

new language by means of the cognitions which he possesses and knows how to express; he learns a new method of expressing his cognitions—even learns new cognitions. But the first acquisition of the cognitions coincides with the first learning of the expressions.

The child is taught by speaking to it and accustoming it to speak. I make use of the concept of "red," since I possess it, in a judgment which presupposes it, but the first acquisition of the concept of "red" takes place with the first judgment "this is red." The characteristics of concrete objects are only distinct in concrete objects, and the process which makes us distinguish them then would not do so unless at the same time it referred them to those objects, and this must be noted to put in evidence against the fundamental unity of the cognitive process.

In saying "*this* is red" I have not yet made myself fully conscious of the intrinsic arrangement of "*this*," but I have begun to make myself conscious of it; I have distinguished in the concrete object a characteristic which I have referred to that object. I can go on and say "this (always the same concrete object) is a disc, is made of cardboard, &c." I join the judgment, and I say "this is a red cardboard disc": the intrinsic arrangement of the concrete object is now in my consciousness with greater fullness. I say further, "this red cardboard disc is here." The arrangement of which I am conscious is no longer only intrinsic—it includes at the same time "*this*" and something else; a (space) relation of "*this*" with something else. Suddenly the disc goes—the wind has blown it away. New judgments expressing new relations of "*this*" with other things, a varying in space relation, a causal relation.

Once more—I say "a disc, every disc, can roll; the wind easily blows pieces of cardboard away." Where

are the concrete objects of whose internal arrangement I have rendered myself conscious? I am not speaking of any concrete object in particular, but what I say is true in general for all those concrete objects which have certain characteristics. What I say refers always to concrete objects, but not to *a* concrete object. It has a meaning and a value, because it has a meaning and a value for the whole of certain concrete objects—for the concrete objects of certain classes.

Judgments have certain relations between them which can be known, that is, which can be reconstructed, in the same way as the relations between concepts or concrete objects. And a collection of judgments bound together by known relations so as to form a system is science.

There are no necessary errors. To acquire explicit consciousness of the relations between the elements of a whole, I have only to reconstruct the whole. I commit an error if, instead of reconstructing the whole, I perform a different operation. Now since the whole is in my consciousness, the possibility of comparing it with what ought to be its reconstruction always exists. Supposing the whole to be very complicated, the comparison will require time and labour. But whether I expend the necessary time and labour, or refrain from judging if I cannot so expend them, depends on me alone. I mean in the field of science, where no one is compelled to labour. In the field of practice it is another thing. I cannot have every glass of water which I drink chemically analysed. If I want to do something—and there are many things I must do—I must content myself with appearances which will perhaps be deceptive, and then I err without fault of mine.

A negative judgment serves to eliminate one recognised as erroneous, and also to exclude a judgment from

a field in which it is not valid (that is, in which it would be erroneous). Between the two functions there is no substantial difference. For instance, a point which moves in a straight line must in passing from one point to another pass successively through a determinate series of intermediate points. This is not true of a point which moves over a plane.

Among judgments, some are necessarily true and others not necessarily so. The same may be said of the relations between judgments. But the distinction between the two classes of judgments is out of place here.

XI

Cognition of reality and self-consciousness.

What has been said about the manner in which cognition becomes actual is as valid for external reality, the elements of which (the sense-perceivables) can be or are common to many subjects, as for internal reality, the elements of which are facts exclusively peculiar to the consciousness of the determinate subject. There is no essential difference between the two sorts of cognitions—no difference which should be noted in a study only designed to discover the conditions of their possibility.

But knowing *his own* facts of consciousness, knowing by means of certain processes of which he has consciousness, the subject comes to know *himself*. Every subject *is* unity of consciousness, the man besides *knows* that he is unity of consciousness. He contrasts clearly and vigorously himself with things, with his own modes of existence. Not only is he unity of consciousness, he is self-consciousness. He is not only a subject, but an "*I*." The consciousness of the unity, which is superimposed on the unity, is not a single new element like

a new content, a new feeling, or a new act. It is a profound transformation of the unity *qua* unity. One might almost say that the simple subject was, so to speak, a mean proportional between the "*I*" and the inanimate body (a group of sense-perceivables without unity of consciousness), but the formula does not put the superiority of the "*I*" sufficiently in evidence.

The subject is transformed into an "*I*" by cognition, or by there arising an explicit consciousness of the laws which are implicit in consciousness, the first among which, and a condition of every other, is the unity of consciousness. Facts happen and are connected with one another according to certain laws; things have characteristics. Laws and characteristics are *knowables*, rational elements, certainly not extraneous to the consciousness even of the simple subject; because in the consciousness even of the simple subject there are contents, feelings, and acts which have characteristics, and which vary according to certain laws. But in the consciousness of the simple subject characteristics and laws are implicit and cannot be distinguished from that of which they are characteristics and laws.

A brute sees a fruit; he wants it, and procures it with actions which are well directed to the purpose. The man says "This is a fruit—such or such a fruit. It is good to eat. I want it because I am hungry. To have it, I must do so and so." He renders explicit in his consciousness a collection of relations and laws which are valid also in the consciousness of the brute, but without being explicit there as relations and laws, being simply enclosed in it in so far as incorporated in the *given* content. To do this, the man must distinguish himself from things and from his own states, and contrast himself with things and with his own states. To render explicit to himself the intrinsic

arrangement of things without establishing what is, for the subject, the greatest, the constituent element of that arrangement—the distinction, the contrast between the one consciousness and the things of which there is consciousness—is not possible.

There is no cognition without self-consciousness. *Per contra*, self-consciousness is itself cognition. Not only so, but it cannot become actual, cannot exist, except in so far as there are (other) cognitions. Only the "*I*" judges, but the "*I*" exists only in so far as it judges. The drunkard or dreamer is not, properly speaking, an "*I*," though he has been one, and may be so again.

To help the child to gain consciousness of self, we only try to help him to gain cognitions, and in him the acquirement of cognitions and of consciousness of self proceed, evidently, *pari passu*.

CHAPTER V

VALUES

I

The subject gives expression to an activity of which it has consciousness. This, in so far as it is expressed by overcoming an obstacle, is accompanied by a feeling of satisfaction, while, in so far as it is limited and hindered by the same obstacle which it overcomes, it is accompanied by a feeling of dissatisfaction. These feelings, mutually inseparable, but not generally in equilibrium,[1] are the first or elementary values. Not the only ones, nor yet the greatest by a long way, if we take them according to the simple concept which we have given of them, but such that without them no other value would be comprehensible or possible.

Activity and value: the life of the subject.

Why does the subject take pleasure in expressing its own activity, while it is displeased by the limits and hindrance which the same activity encounters? We reply that the activity of the subject is a constituent of it, or rather its true and fundamental constituent. The acts which I am conscious of performing are mine, much more so than the sense-percepts or even recollections, though these are mine too. Because sense-perceivables can be perceived by others as well as by me; they have no essential connection with me alone. And recollections, although they can only be included in that unity of consciousness which is mine through the manner

[1] The predominance of the one or the other is determined by circumstances which will be discussed later.

in which I have consciousness of them, are comparable with sense-perceivables that are perceived; before recollection, as before sense-perception, I am simply a spectator.

The variation, both of sense-percepts and of recollections, is doubtless a variation of the subject, but not, of itself immediately, an action of his. Now a subject which did not act, which was not by itself a centre of spontaneous activity, could be reduced to a representation —a complex, a bundle of sense-percepts and recollections, and variable in accordance with a certain law. It would not be that which *has* the representation. Sense-perceivables become perceived by a subject by reason of their interfering with the activity of the subject, and to this interference we owe the formation of the recollections connected with the sense-percepts and forming with them the representation. This could not be formed without the forming activity. (Besides, can we conceive a representation with no one to possess it?) Sense-percepts and recollections are constituents of the subject, but subordinate to that other constituent which is activity, which therefore, although not separable from the others, must be regarded as the principal constituent. A subject exists as something which is distinguished from the world (though not separable from it) and from every other subject, because and in so far as it acts.

In the expression, then, of its own activity among sense-perceivables, or among the obstacles which it overcomes, and consequently in making itself conscious of the obstacles, in making the sense-perceivables percepts, a subject extends itself—including in itself an ever increasing part of reality, it develops itself, it *lives*. Further, with this *acting* of its, the subject intensifies its own acting, or rather its own existence. For the activity of the subject is not entirely conscious. The body of the subject is a storehouse of activity which develops

itself mostly outside the subject's consciousness, though bound up with the conscious activity in a unity—seeing that the unity of consciousness is always, even in this case, made complete by a unity of unconsciousness. And the spontaneous interference of the subject with external reality is an opportunity through which many elements of activity, unconscious or subconscious, reach consciousness with the result of intensifying the conscious activity. A child developing in play the activity of which it has consciousness raises above the threshold of consciousness many elements of activity which would have remained below it without the exercise of playing: to say nothing of the fact that the recollections accumulated in the unconsciousness by preceding expressions of activity are recalled into consciousness by the actual expression of the same activity more often than by the accidental varying of sense-percepts. In renewing the work the chain of recollections which had been broken is renewed; we profit by past experience, and make ourselves masters of the rules, learned ever better by applying them.

We may, then, conclude that the subject takes pleasure in the expression with vigorous fullness of its own activity, because this expression constitutes an increase, a development, of its own being, of itself in all that constitutes it, and particularly in that which constitutes it most intimately; and that, on the other hand, the limitations, the hindrance to the development of the activity, in so far as they are not conditions of this same development displease the subject because they diminish it and mortify it. The subject, by its nature or in virtue of that law to which it owes its being, tends in general to extend itself, to expand itself, and to include in itself the whole universe. The satisfaction or otherwise of these two tendencies (which in substance are but one) is essentially a good or an evil for the subject.

II

All this is true. But it is not an explanation of value. It serves to direct the attention of one who has the concept of value in the right direction; it could not give it to one who had not the concept already.

Primary character of the concept of value.

The subject is capable of satisfaction or the contrary, of good or of evil, or, let us say, of pleasure or of pain. A more precise distinction is not needed for the present, and we should not know how to establish it. It is capable of these because it is active. But the activity of the subject is the source, the *raison d'être*, the constituent of value, precisely because it is such that its manifesting itself or its being hindered from doing so is a good or an evil respectively for the subject. The reduction of value to activity is illusory; if it has to be the root of values, activity must in its turn be capable of value, must be endowed with it. Value must be an element, a constituent characteristic of it. The concept of value cannot be constructed.

Two bodies attract each other according to known laws. They tend to approach each other along the straight line which unites their centres of gravity with a movement whose acceleration constantly increases as the distance diminishes. We can say that each of the two bodies manifests an activity. We can, and we must, say so of each of the two bodies just as much as of any subject whatsoever under whatsoever circumstances. Neither of the two bodies would act in that way if the other did not resist, but no more would a subject act in that way if there were nothing external on which to exercise its activity and so manifest it. May the rushing together of the two bodies in a

straight line perhaps be a good for each of them? Or if such a tendency cannot be realised (because, for instance, one of the two bodies has a velocity in the opposite direction of the straight line which unites their centres of gravity), may this be an evil for one or both of the two bodies?

A word means neither more nor less than what we wish it to mean. By activity, we do or do not mean something which necessarily by itself implies value. In the first case we can base a theory of values on activity, a *true* theory, but one which will not have deduced or constructed, but will have presupposed, the concept of value. In the second case activity will be only a synonym for cause. And then it will either not be possible to base a doctrine of values on activity, or we shall have to recognise an intrinsic value even in purely physical happening, and say, for instance, that the alteration produced by an acid on a plate of white marble is something comparable to the painful burn which an animal would have experienced.

Certainly, causes and physical laws have value for a subject—a purely practical value, in so far as they interfere with the activity of the subject, favouring or disturbing it,[1] and a knowledge-value (still practical, but in another sense) for a subject capable of knowing them.

Knowledge has a value for us apart from what are commonly called its applications. But in one way or another, causality or physical reality has value for a subject, indeed for every subject. Its value presupposes the value of the subject; it does not serve to explain it or to construct it. The subject would have no value of its own if its activity had not characteristics differing

[1] To a fish, the temperature and the chemical composition of the water in which it lives are not indifferent.

from those of physical reality. In this case, physical reality would have no value for any subject—in other words, it would have no value at all. Naturally, we make abstractions from every doctrine and from every supposition as to the essential relations between physical reality and the subject in general. Physical reality, supposing it to be the matrix in which subjects are formed, or supposing (on the contrary) that its existence presupposes the existence of a Universal Subject (no one will believe that it presupposes the existence of any particular determinate subject—say of me or of my cat), would not be without an intrinsic value. But it would have it as a condition of each particular subject, or as conditioned by a Universal Subject, always in reference to the one or the other. As physical reality pure and simple, like the given environment in which each subject is developed and lives well or ill—considered from the point of view from which a particular subject considers or apprehends it—physical reality has no value except for the subject. In itself it is indifferent. In fact, we cannot even assert that in itself it exists. The subject, having a value of its own, lives, and therefore brings into existence a value of physical reality with respect to itself. The knowing subject will be able, from his reflections on this fact, to recognise an intrinsic value in physical reality, but in this way his concept of physical reality will be profoundly modified. In physical reality *qua* physical reality, according to the more or less adequate, more or less reformable concept which we have of it now, it is impossible to recognise any value except in reference to subjects.

III

"Very good," say our opponents, "but the activity of the subject, to which you wish to reduce value, from which alone you claim that value originates, is conscious and spontaneous. It remains always distinct from pure physical causality (of which, supposing it to exist, value could never be a result) even if it does not presuppose that value is an essential constituent of it, a characteristic different from and irreducible to consciousness and spontaneity." We must discuss the question under this new aspect.

Theoretic consciousness and value.

The theoretic consciousness, the unity of certain sense-perceivables perceived and of the recollections or representations which are associated with the sense-percepts and in some degree reproduce them, is, as such, without value. It has no value except through its connections with practical consciousness or with activity — with an activity which already, from the beginning, is not only activity, and not even theoretically conscious activity, but activity and value together. Hence it does not follow that the value of the activity or of the subject is that which alone we must consider as an essential initial element of the activity. Associated with the theoretic consciousness —making abstraction, as always, of cognition properly so called—from which it can nowhere be separated, the activity intensifies and refines itself. Its initial value is transformed correlatively with the enrichment and complication of the theoretic consciousness — an enrichment and complication due in great part to the development of the same activity. The intrinsic value of the adult animal is different from that of the newly-

born. Who doubts it? It is different and greater. Besides, the newly-born child can have only the value exclusively its own, its pleasure and its pain, whereas the adult animal, to a certain extent, makes its own values, which initially are extraneous to it. It is beyond doubt that the theoretic consciousness exercises a most noteworthy influence on the transformation of values. But it exercises such an influence, it transforms the values, because the values, in so far as elementary or initial, are already there; it would be unable to create them.

Everyone easily recognises that the value of a sense-percept—of a content of theoretic consciousness—is less in proportion as the associated feeling is more languid, as its connections with action are weaker and fewer. On the envelope of the letter I receive, I distinguish readily enough the place where the stamp is. It does not matter at all to me. The place of the stamp has, however, a value for the post-office employee, because on it depends the rapidity of putting on the post-mark, or because, for him, the content is connected with action. Not wishing either to reflect or to read, I shut myself up in the dark in a room, and throw myself down on a sofa without going to sleep. The only facts of which I have clear consciousness are the noises which reach me from the street. None of these noises matters to me at all. The collection of them constitutes a distraction which is, on the whole, moderately pleasurable. But the succession of them has a value, which the sounds one by one have not, because by occupying the field of my consciousness, which is not theoretic only, it saves me from the boredom which would assail me in those circumstances.

Making abstraction from my own value and the practical side of my consciousness, no pure content

and no complication of pure contents would have any imaginable value for me. If my apprehension is only a pure bare *indifferent* apprehension, it is impossible that it can matter to me whether I apprehend one thing rather than another, in one way or in another.

Let us make no mistake. We do not deny the value of the theoretic consciousness, of the sense-percept and the recollection. We assert that the theoretic consciousness has a value because it is the consciousness of a subject which already possesses a value. It possesses it because its consciousness is also practical; it is consciousness of an activity whose value constitutes an initial essential characteristic.

IV

If we make distinctions, we do not hypostatise. We do not say there are (1) a theoretic consciousness (of sense-percepts and recollections); (2) a consciousness of activity, also theoretic; (3) a strictly practical consciousness of value—as three separate consciousnesses which unite to constitute the unity of the subject. There is one subject which means *one* consciousness, which is *at the same time* consciousness of certain sense-percepts and certain recollections, consciousness of activity, and consciousness of the value of this activity. They are three aspects or three characteristics of the same consciousness, not three separate consciousnesses. Each of the three characteristics presupposes the other two, but that simply proves that each is primary and irreducible, that the claims, which we oppose, to explain value by means of the conscious activity is absurd. It either is value by itself (or has the characteristics of value beside those of being cause of being conscious), or it will never become value to all eternity.

The same argument continued.

This bar makes an electric current change its course because it is magnetised, not because it is of iron. And yet it is true that if it were not of iron it could not have been magnetised. Similarly the subject has value because it has value, not because it is theoretically conscious of something else, and not even because conscious of its own action (supposing that its own action is not already a value). This remains true, and yet it is true that if the subject were not conscious of something else, and of its own action, it would have no value because it would not exist.

Let us imagine a subject which changes without its variation mattering to it at all. Would there be sense in the supposition that that variation was referable to the subject as a spontaneous action on its part? An action is spontaneous when it is an end to itself and has its own *raison d'être* in that end. If we eliminate the value which the action has for the subject, its *raison d'être* is incomprehensible. The varying, *per se* indifferent, of the subject might be determined by an intrinsic mechanism of the subject, and might therefore always be considered as an action of the subject, in so far as it could be distinguished from a determinate varying *ab extra*. But however complicated it was, it would remain an indifferent varying. Besides, a subject which could be reduced to a pure intrinsic mechanism would not even be conscious, and would not be a subject but a thing.

A thing is also a unity, and it is a unity of facts of consciousness. What is wanting which prevents its being a unity of consciousness, a subject? Precisely, *passionality*, interest, or value. Besides the existence of a happening connected with certain facts, this happening must matter to it. If, on the one hand, the "mattering" presupposes the subject, on the other it is

a condition of the subject's existence. It constitutes, between the facts which it connects, a vinculum *sui generis*, in virtue of which the subject perceives them as its own modifications. Without unity of practical consciousness, there can be no unity of theoretic consciousness, and *vice versa*.[1]

This result, which we have already obtained by other paths, is continually brought before us. It is certainly the most adequate expression of the unity of the subject. Simple, unprejudiced observation confirms it in the clearest way. Not everything of which we are conscious is of equal importance to us, but nothing of which we are conscious is of no importance to us at all. It does not take much to make us understand and recognise as a fact of every moment that a thing which could not under any circumstances be of any importance to us could not be included in our theoretic consciousness. We are always brought back to the primitive nature of the concept of value, to the impossibility of constructing it from elements which do not presuppose it. Activity and spontaneity are no exceptions. Activity can increase its value by manifesting itself, but it cannot create value, and a spontaneity which is not at the same time value is a meaningless word.

It is true, "*Every valuation presupposes a volition which takes up a position and seeks satisfaction.*" We are speaking for the present of values lived, not of value-judgments, and hence not even of volition in a strict sense. But why do I wish to take up a position among things and men? Because it is of importance to me; or because my good or my evil depend in part on my position. Without this, the position would be as indifferent to me as to a stone, and I should be as

[1] If priority is to be considered at all, it belongs to the practical consciousness of value.

capable of volition as a stone. If every valuation presupposes volition, so also every wish, nay, every conscious spontaneous activity, presupposes a foundation of valuation—presupposes a value not created by the volition or activity, a value which is an essential constituent of the volition or activity.

V

The special value of the subject, lived by the subject, can be reduced to the activity of the subject itself. It is positive (good) or negative (evil) according as the activity is undisturbed or disturbed. But activity is not value in so far as it is simply cause, in so far as it modifies the unity of consciousness and unconsciousness by which the subject is constituted—the soul, the body, and the external world which is the immediate environment of the body. Activity, to be value or rather to be the subject's activity, must be conscious. Not only so, but it must be practically conscious. It must be practical, I mean, not only in its results, but in the manner in which there is consciousness of it. In other words, my apprehension of my action must not be a purely cold and indifferent apprehension. The consciousness which I have of my acting must differ in its characteristics from that which I have of the varying of a sense-perceivable of no importance to me. My acting would not be acting if it were of no importance to me. But it would have no importance for me if the consciousness which I have of it did not constitute this importance, if it could be reduced to a perceiving, to a fact of theoretic consciousness.

Value and feeling.

Strictly speaking, an apprehension which is only a purely cold and indifferent apprehension does not exist. An apprehension which was not associated with acting

would not be an apprehension. The unity of the subject is essentially practical. A something which had no relation to the activity of the subject would be outside the unity of the subject, and the subject would have no consciousness of it. Consciousness that is theoretic, and theoretic only, is not a reality; it is an abstraction—an abstraction suggested to us by the fact that the elements which we apprehend have not all the same importance. The interest varies from a maximum to a minimum—indefinite and very distant from each other. In order to study, we must inevitably distinguish, abstract, and consider separately things which are inseparable. We cannot form a theory of anything real, much less of that complex which is the unity of consciousness, without dividing it into parts. Many perceptions, which are certainly perceptions like the others, have ordinarily little importance for us.[1] Therefore we have good reason to suppose that importance is not essential to perception. Thus we arrive at the concept of theoretic consciousness—an abstraction which constitutes an inadequate and erroneous concept of reality if it is mistaken, as it is by many, for a reality. The error, though not negligible, is not of much consequence in the study of the facts of perception, but it becomes absolutely disastrous in reference to the facts of value, to the activity. In studying the function of the skeleton, for instance, we can to a certain extent neglect the fact that the skeleton of a living animal is itself also living, and regard it as a structure, a solid and articulate framework which might even, to a certain degree, be made of metal. But woe to us if we

[1] A little importance there always is—so true is this that an insignificant thing can, under certain conditions, become most important. A noise, which by day I should scarcely have noticed, attracts my attention by night.

applied the same criterion to the study of the nervous system!

It is essential to the activity which is the root of value, in order that it may be the root of value, in order that it may be the activity of a subject, that the subject should have a consciousness of it other than theoretic. It must be different from what (with an abstraction which not even in this case renders the reality exactly) we picture to ourselves the perceptive consciousness as being, the consciousness of sense-percept, of representations and recollections, or, in a word, of contents. A *tonality* which is *always* pleasing or painful is essential to the consciousness of activity.

We will say that a feeling is always associated with the theoretic (perceptive) consciousness of activity. Here also, and here more than ever, we must be on our guard against the suggestions of language. It is not to be believed that the theoretic consciousness of activity and the feeling are two facts, always associated indeed but quite distinct, as, for instance, our parents are always associated as parents and yet are distinct as subjects. No, the fact is but *one*, and only considered under two different aspects. I apprehend what I see without its being of importance to me. And in a sense I apprehend in the same way also what I do. I can abstract from the value which what I do has for me. On the other hand, I can abstract from this way of apprehending my acting, and attend to its value only. I perceive my acting[1] and have the feeling of it. But I perceive it in so far as I have the feeling of it, and I have the feeling of it in so far as I perceive it.

[1] The perception of an *acting* must not be confounded with that of its particularity or modality which might also be an element of quite a different happening. My walking, for instance, as an action performed by me, is not the same as my changing place. I might also be transported by an external force.

Since from the consciousness of acting, or from conscious acting, we have made abstraction of the perceptive, theoretic moment, we must, unless we wish to lose sight of the reality of the perceptive fact, take notice that the feeling is associated with the perceptive moment. And this feeling, as "something" by itself, can also be reduced to an abstraction. I have said enough to prevent misunderstanding in the way of hypostatising feeling. It results from all this that the value of the subject, lived by the subject, just because it can be reduced to the activity of the subject itself, is realised in feeling.

VI

A difficulty which would be decisive if it held good is raised against the reduction of value to feeling—feeling is a simple content. Certainly physiological feeling is inseparable from sensation; it is the tonality of a sensation.[1] But precisely on this account even physiological feeling is ultimately distinguished from a content. Being a content and being tonality are contradictory and opposite. In my consciousness an element is a simple content and I am simply a spectator of it, in so far as its existence or non-existence are equally unimportant to me—though, as we have already repeatedly mentioned that the non-importance is never absolute, the subject as a simple spectator, the theoretic consciousness as a simple receptacle of contents, are abstractions. Of a feeling, however, I am never a simple spectator; I cannot *have* a pain in my consciousness without *suffering it.*

Whether feeling can be compared to a content.

[1] A feeling is always the tonality of a fact of consciousness which can never be reduced to pure tonality, but always possesses, though not always in equal degree, also the other characteristics essential to consciousness. We make a distinction, we do not pretend to separate.

Suppose a mirror conscious of the images it reflects. Its consciousness, which would be the reflecting, would be theoretic, and would have for contents the images. In fact it would not be important at all to it to reflect one image rather than another. Whatever image it reflects or has reflected, the mirror is always capable of reflecting indifferently any others whatsoever. But let the mirror be imperfect and conscious of its own imperfection. This consciousness could not be called purely theoretic. Although it is consciousness, both the imperfection and the reflection have a common characteristic, hence even from the consciousness of the imperfection it may be possible to abstract a moment which may be called theoretic. But the imperfection modifies the mirror intrinsically; for, being imperfect, it is no longer fitted to reflect images as before. The consciousness of the imperfection would be comparable to a feeling. Between a reflected image and an imperfection the difference is quite evident. I do not give this comparison as a proof, but to put in relief the difference erroneously neglected between feeling and content of theoretic consciousness; it is even more than is needed.

Feeling and theoretic consciousness are bound together in the unity of the subject; they mutually modify and condition each other. I said before (and, I think, rightly) that the content of sensations is presented to us as external reality, thanks to its connection with feeling. I can indeed modify the content of sensation, but only within certain limits and submitting to certain laws. I feel myself bound to it. And my feeling myself bound to it is a feeling immediately unpleasant, although custom diminishes its unpleasantness and associations may make it acquire a positive value. The walls of the house hinder us from wandering absolutely

ad libitum; in compensation they defend us from cold, from bores, and from thieves. It is a more than sufficient compensation.

On the other hand, physiological feeling is evidently determined by the content of sensation; it is the consciousness of a modification which the content, the sense-perceivable perceived, produces in us. And the character of the feeling depends in part on that of the content, not only on the consciousness, implicit or explicit, which we have of certain laws of reality, *i.e.* of the content. We cannot console ourselves for the death of one we love on the ground that the dead never return. But the undeniable connection between the two forms of consciousness, or rather their inseparability, far from authorising us to deny the distinction, proves it. The relations between feelings and contents are different from those between contents only or between feelings only.

We must remember that the content may be common to any number of subjects. Can the feeling? One and the same sense-perceivable is perceived by Titius and by Sempronius. On the other hand, the pain of Titius is exclusively peculiar to Titius. Sempronius may suffer an equal pain (who can tell?), but at any rate the pains are two, numerically distinct. Therefore with the disappearance of Titius, the content of his consciousness does not disappear; it merely ceases to be content of the consciousness of Titius. But with the disappearance of Titius, his feelings vanish absolutely.

The objection which we have examined does not hold good. Feelings can be values. They are values, not even excepting physiologicial pleasures and pains. These are certainly not the highest values, but that does not mean that they are negligible. Since we cannot avoid suffering, we must resign ourselves to it,

and make it serve as a means to the attainment of some good. But no one will say that a man has a true concept of value if the sufferings of other men, or even of brute beasts, appear to him valueless.

Aristotle says that rather than stain ourselves with baseness we should be ready to suffer the most terrible things, and he is evidently right. But if these things which we must be ready to suffer were valueless, they would not be terrible, and then it would not be admirable to suffer them in order not to stain ourselves. And pleasure, although its positive value is, all considered, inferior to the negative value of pain, yet, if tasted as it ought to be, it is not only a restorative which we could not do without—it is divine. Pleasures and pains, with their interchange with the fervour of the passions which they arouse in us, give to a man who has understanding and will the way of accomplishing and realising the highest values, and they constitute together the most serious obstacles which must be overcome in the attainment of higher values. How can we deny that they are values?

VII

The complication of feelings.

It is said, "With the impression produced by a stimulus there is associated an activity which tends to make the stimulus persist or to remove it. Feeling is only the consciousness of this activity. It is not true, then, that the activity intervenes because the feeling precedes it, but the feeling arises because an activity reacts." Let us discuss this. A feeling which "arises because an activity reacts" is quite a new thing, following the activity and distinct from it. Now among the constituents of a subject there is certainly an essentially conscious activity.

If feeling is truly "the consciousness of this activity," it cannot be distinguished from it as something new and following.

Furthermore, the activity now "tends to make the stimulus persist," now "to remove it." Why? The reactions of an activity which is the conscious activity of a subject cannot be reduced to a psycho-physiological causal mechanism. The reason, then, can only consist in the stimulus being apprehended respectively as pleasant or painful. The feeling, then, would always precede the activity, in opposition to what has been stated.

To understand the relations of feeling with the activity, and its true meaning in relation to the value of the subject, we must make a distinction. Initially the subject's activity expresses itself, not by seeking a good which is distinct from it, but because the expression is pleasurable in itself. The child does not play for any secondary end, but for the joy of being active, of expanding itself in the game. The spontaneous movements, without external finality, of all animals in their first phases of life prove the initial identity of undisturbed action with enjoyment. This initial identity gives an ample reason why every stimulus is sufficient to provoke an expression of activity, if indeed we ought to speak of the provocation as an absolute *prius* with regard to the expression. The constituent energy of the subject and some external energy are *always* in relation, and mutually condition each other as parts of the same whole. They interfere in so far as they exist, and because they exist.

On the other hand, without the said initial identity no stimulus could provoke an activity which is a value, which in expressing itself realises new and higher values. The very concept of subjective activity as distinct from

physical causality vanishes. But the full identity is only initial. There soon arises, in the higher animals at least, a difference which does not destroy it, but imposes itself upon it. The reason has been already given. In its body the subject possesses a storehouse, or rather a system of energies, partly prearranged, which goes on arranging itself. These are to a very great extent unconscious—they are included in that unity of unconsciousness from which the unity of consciousness is inseparable. The conscious activity whose undisturbed self-expression is *per se* a good, and whose non-expression or disturbed expression is *per se* an evil, depends for its more or less undisturbed expression on the conditions of the unconscious activity, intrinsic in the unity of unconsciousness and relative to the external world. From this it results (no one will pretend that we can say exactly in what way) that the conditions of the unity of unconsciousness, and particularly the state of the body reach consciousness.

They reach it under the form of feeling. The intrinsic state of the body and its relations with other bodies are such as to favour or hinder the undisturbed expression of the conscious activity, to intensify its power, or to create contrasts which disturb it. For the subject the first state of things is a good, the second an evil. A good or an evil, not always but in many cases (indirectly one might in the end always say), are apprehended by the subject under the form of happiness or pleasure, or else of unhappiness or pain. And so not only the general state of the body, but also the states (internal or external) of some or many of the several parts, may reach consciousness. This gives rise to a great multiplicity and variety of feelings, some even opposed to one another. For instance, a pain in a limb may be associated with the pleasure of drinking.

Can these feelings, which we will call simple, always associated with sensations and penetrated by them, be reduced to activity? Without doubt; but on condition that we pay regard not only to the conscious activity but to all the activity together, unified alike in the consciousness and unconsciousness of the subject. They are, in fact, the conscious manifestations of a practical character, implicitly of value, of the state in which the system of the unconscious activities, or a part of such system, happens to be. Just as the activity, which by their means makes its way into consciousness and there makes itself of value, does not arrive as such in consciousness, or only in a fragmentary manner, the subject does not apprehend the immediate connection of the said feelings with the activity. In fact, these have no immediate connection with that activity of which the subject is conscious.

Hence it happens that the simple feelings appear to the subject as extraneous elements which arrive from outside, and make their way into consciousness like sense-perceivables, perceived, we might say, with different specific characteristics. And the appearance is not illusory. The simple feeling, if it has no root outside the subject, has its root outside his consciousness. On touching a hot iron, *I feel myself burned by it* just as I feel its resistance. Here we have an ample reason for a fact which is one of the most common, but which would not be conceivable or possible if feeling had its root only in the conscious activity. Gradually as the soul proceeds to systematise itself under the pressure of experience—let us neglect cognition for the present—the simple feelings end by predominating the conscious activity and subordinating it to themselves.

The new-born animal acts for acting's sake. It moves without any external finality solely because the

movement satisfies it. The adult animal, and also man, in so far as he conducts himself like an animal, acts in preference to attain some end which certainly is not external to the subject, but external to the activity which is manifested in the attainment of it. He seeks pleasure, he avoids pain. We are not inquiring how the action can be directed towards an end and attain it, though not guided by cognition. One thing we ought to note—the end, when not indicated by a blind instinct, is represented, and represented as something different from the action, which is therefore not an end in itself.

The animal, or the baby, which at first acted for acting's sake, soon learns to its own cost that the satisfaction given to it by the incoherent expression of its activity is largely compensated by pains, brought upon it by this same incoherent expression. It learns, on the other hand, that there are pleasures more intense than that satisfaction, though not so simple. Recollections, representations, and expectations give rise to processes which, if they are not real and true comparisons, have the practical consequences of such. Fears, hopes, determinate desires, arise and create ever more precise bonds to the spontaneous activity from the outside. The activity goes on adapting itself ever more and more to an ever more rigid framework, and, although it always preserves some traces of its primitive autonomy, it goes on systematising itself ever more heteronomously. To give it an autonomous systematisation, to preserve or re-establish its spontaneity—a spontaneity arranged according to laws imposed on itself by itself—is the peculiar practical function of cognition, of which more hereafter.

VIII

In the unity of the subject the feelings are associated with one another, and with the other elements alike of consciousness and of unconsciousness. They modify one another; they modify the other elements of consciousness and unconsciousness, and are modified by them.[2] Thus it happens that the general state of the subject changes, approximating, or tending to approximate, to a condition of variable equilibrium both internal and external. Nor is it only the state, but the organisation of the subject tends to change—the organisation on which depends its aptitude for being in a certain state, its disposition towards one or other form of variable equilibrium. This tendency, indications of which can already be seen in the life of a subject,[3] becomes evident when it is considered as a series of successive generations. *Life develops itself* according to laws absolutely irreducible to laws either physical or physiological, because life in developing itself tends towards an end which is not in the consciousness of any one individual subject, but which goes on realising itself by means of the conscious aims of the individual subjects. If we suppress the individual unities of consciousness, we shall have suppressed, along with the values which cannot be

The same argument continued. Self-centredness[1] of the value in the subject.

[1] Egocentricity.

[2] The mutual modification and interference with one another of all the elements of which the conscious and unconscious unity of the subject is composed proves that at bottom they are all manifestations of forms of energy. The activity, more or less conscious or totally unconscious, is not something which is accompanied by or associated with something else, but the substantial nucleus of every psychical fact—the different forms which it assumes depending on the conditions of its manifestation.

[3] To say nothing of the metamorphoses of many animals. Compare the young adult with the child, the child with the baby.

separated from these, the motive force of the development. The animal tends towards its improvement. It may attain it or not, but in trying to do so it co-operates, without knowing it, to develop life, to increase its value—that is, to render possible to other animals which will come after the realisation of higher values.

What has been said about the mutual interference of the psychical facts bound together in the unity of the subject cannot be interpreted in an associationist sense. Sensations, representations, recollections, manifestations of activity, feelings, presuppose the subject of which they are determinations. They would vanish if the subject vanished. If a subject were taken away, nothing would remain of the elements of which that subject is the unity but the contents of sensation alone, and these not as contents but as sense-perceivables bound together by physical laws. With respect to its determinate features, the facts of its consciousness, the subject is certainly something primary. In it we must recognise an activity, a sensation (of its own body), and also a feeling—all these primitive, fundamental—successively breaking out into acts, sensations, and simple feelings. The fundamental feeling, as condition of there being simple feelings, cannot be reduced to a resultant of these.

But we must also recognise that the subject is only truly conscious in its determinate states. What is determined—what is presupposed by the determinate states and cannot be separated from them—remains in subconsciousness, or is driven there by the much more vivid consciousness of the determinate states.

So the value of a living subject is constituted by the resultant of its simple feelings. It is quite clear that these are compounded by laws other than physical.

The stronger of two opposed feelings prevails. But the two feelings are not two groups of units of the same kind; a comparison between their quantities is not possible. The stronger is the one which has more value, and the difference of value is not reducible to anything else. It is also clear that in the resultant of the feelings the other psychical elements also assert their value, especially the recollections and expectations. But the other elements assert their value in it indirectly. A given simple feeling is not something like a stone, which is almost the same in a quarry, in a heap, or in a wall. It cannot be separated from the whole in which it is included; it is what it is because it is included in a certain whole. True, but the good or evil of the subject at a given time depends on its actual feelings (which depend in their turn on the other psychical facts); they are the resultant of them—a resultant that, although *sui generis*, altogether different from a mechanical resultant, is still *determined* by what the simple feelings are. The activity of the subject, in so far as it is spontaneous, in so far as it is not fixed by the organisation—as in fact it actually is—has only a quite secondary influence on the subject's value.

Hence it follows that the value lived by a subject is exclusively its own. In some brutes the sexual relations have an undeniable character of affection. Even less rare is the affection towards their young, especially on the part of the mothers, which are sometimes induced to make wonderful sacrifices—sacrifices evidently intentional. Certain brutes live in a society. The dog, horse, &c., have affection for man. The writer remembers having observed in his childhood a curious case of jealousy of a cat towards a bird of which much notice was taken. A brute can feel affection also for brutes of a different species. Birds have taste, they

learn to imitate tunes, and rival one another in song even when there are no females to attract.

Facts are facts, but they need interpretation. I go to look over a suite of rooms. They are well situated, have a good aspect, and are conveniently arranged, elegant, and fit for a gentleman. My furniture would look well in them, and I am greatly pleased with them. I rent them. Have I recognised in them a value distinct from my own? Certainly not. I have simply recognised that certain things have a value in relation to me, and are a convenient means towards the attainment of certain ends of mine. We write a 0 at the right hand of a 1, and we shall have 10, not that 0 has an (arithmetic) value, but 1 having an intrinsic value of its own, its value can be increased by its relation to a 0. The suite of rooms, as far as intrinsic value is concerned, is a zero, which, put in relation to my intrinsic value, real in itself, increases it. The valuations which we make of things are all of this kind, because nothing has an intrinsic value. Things only have value in relation to subjects. In other words, they have an aptitude for modifying a value which already exists—the value of a subject; subjects also have this aptitude, though each of them has, in distinction from things, a value of its own. And to recognise such an aptitude in a subject and to assign it a value—however great, even unique—*in relation* is not to recognise or even be aware of its *intrinsic* value. Many love their friends, their wives, their children, God (from whom they expect Paradise), themselves, because in their life they see no other good than a hoped for succession of pleasures—precisely, in this way, self-centred, rather than selfish. The selfish man is conscious. He deliberately sacrifices the other subject to himself. The self-centred is not conscious, he fancies that he recognises the value of the

other subject, because he recognises its value in relation to himself. His error consists in not recognising in himself any other value beyond that lived in the immediacy of feeling. Self-centredness is reconcilable with the apparently most generous self-sacrifice. Supposing your son is the dearest thing you have, it is natural for you to sacrifice yourself for him—for the same motive, in the end, by which the miser is induced to sacrifice himself for his hoard.

There is no reason to suppose that the animals pass a point which many men—the majority perhaps—seem incapable of reaching. If there were no subjects except animals, there would then be no other values than those of simple subjects—a number of values, each self-enclosed, incommunicable. The whole would be valueless except for the subjects included in it. As a whole, it would have no value at all.

IX

Man is also a subject, an animal, but he is a subject who has cognitions, and therefore distinct from the other animals. The elements which are or can be included in the unity of consciousness of a subject have characteristics in which they differ, and others in which they resemble each other. Certain elements—the sense-perceivables—can be common to every subject. Certain others are peculiar to a particular subject. Both alike can be divided into a great number of classes and sub-classes according to their resemblances and differences. There are bodies, all distributed in space, and among them also the subject's own body. They differ in position, shape, size, and qualities of every kind. There are recollections, representations, expectations, desires, tendencies, instincts, feelings, and actions belonging to the

The person.

subjects. These elements are arranged correlatively with their characteristics. The sense-perceivables perceived form groups with which recollections, &c., are associated (certain recollections with certain sense-percepts). The groups of all elements whatsoever are arranged in their turn in higher groups. And the elements or the groups vary, all of them, more or less slowly, in time, according to certain laws.

Consciousness, with all that can reach consciousness, constitutes an organism of extreme complexity, bound together in itself—not, as it seems, a rigorously determinate mechanism. At least the spontaneity of each subject seems to escape precise determination, but it is developed in a field governed by law. There are laws which have value for it also, although they leave it unbound internally in its own limited sphere. The organisation of consciousness and of all that can reach consciousness permits the animal to find its true place both without and within itself—to develop its spontaneity without too violent contrasts with other energies, to realise its value and to increase it to a certain degree, to live in the world and apparently to be fairly comfortable there on the whole.

The animal is organised and lives in a world also organised—not organised in the same way, but still arranged, systematised. Man has moreover consciousness of the organisation, both his own and that of things. Not that he has full, clear, and distinct consciousness of it, but he is on the road to obtain it, though we admit that it is a road without an ending. His consciousness is not of concrete objects alone. It fixes characteristics distinctly, it formulates laws. Resemblances, differences, space, time, number, causal connection, are the essential elements with which all the laws of happening can be formulated. The consciousness of man is in possession

of these elements and of the aptitude for affirming. Besides living reality, man is capable of knowing truth. He can say something of external facts and of those peculiar to himself.

In so far as he knows, man is not only a unity of consciousness. He has distinct consciousness of this unity, which is therefore a law. In the cognition of any fact, no matter how small—in the judgments, for instance, "This is green," "I am tired"—self-consciousness is included. Included does not mean only potential. A judgment implies the *reality*, though not necessarily the *formulation*, of self-consciousness. Judgment is not possible unless the subject which judges confronts the thing on which the judgment is pronounced. The concept, essential to judgment, is not a concrete object, and cannot be in consciousness as a concrete object. It is in consciousness only in so far as the subject is rendered conscious of its own unifying function or of itself. In the statement "A is B" is implied "I affirm that . . ."

The subject cannot exercise activity in that form by which cognition is constituted without becoming self-conscious, without being transformed from a simple subject into an "*I*."

X

Self-consciousness, although founded on cognition (which in its turn is founded on self-consciousness) and expressed in a judgment "I exist," is not a simple form of theoretic consciousness. Nor yet is cognition, even the most abstract and the furthest removed from a utilitarian application, a simple fact of theoretic consciousness, a content, as a sense-percept or recollection would be. The asserting is in every case in acting. But we must distinguish. When we make a

Formation of the person.

judgment about something other than ourselves, or when the "*I*" although presupposed by the judgment (there cannot be a judgment without a judge) does not enter into the matter of the judgment, that action, which is the judging, can be reduced to a conscious reconstruction of the thing about which we make the judgment. The laws to which the thing (which is never an absolutely simple "something") owes its internal organisation, its being, are implicitly in my consciousness, since the thing is in my consciousness. I render them explicit; I render explicit the organisation of the thing, or I know the thing, in so far as by reconstructing it I manifest my own activity, conforming it, bending it, to the constituent laws of the thing. My action in these cases is a remaking.

On the other hand, when I myself am that about which I make the judgment, my action is no longer simply reconstructive; it is truly constructive. The "*I*," in the true sense of the word, or the unity of the self-consciousness—very different from the pure unity of consciousness or from the animal subject—only exists in so far as it asserts itself. The "*I*" only exists in so far as it has consciousness of itself. Whether I say it or not, whether I know it or not, this is always an orange, the orange is always a fruit, &c. Sense-perceivables exist and are governed by the same laws, even if this particular person or that particular subject does not exist. But that particular subject does not exist if certain sense-perceivables are not included in a certain unity of consciousness; and this particular person, this "*I*," does not exist unless, besides the unity of consciousness, there is the unity of self-consciousness, unless the consciousness asserts itself. This asserting, unlike every other, is therefore a positing, an extending.

On the conditions of a particular "*I*" being formed,

we cannot and must not speak at length. As far as we know, a subject always precedes the "*I*," and in its consciousness the "*I*" is formed and remains bound up with it. The "*I*" is formed simultaneously with cognition, and the subject reaches it under the pressure of practical requirements, to which cognition serves as a means. It is aided by the example and suggestion of persons already formed with whom it lives (language exercises one of the strongest influences in this respect). It reaches it, if we need say so, because it is disposed to it, because it has in itself the possibility of reaching it. Without this practical pressure, example or suggestion would be of no use. The man is implicit in the child. We must leave undiscussed the question whether there is in every subject an implicit "*I*" which does not succeed in making itself explicit—as in the case of animals which remain subjects always and never become persons—solely because they lack the external aids and the possibility of profiting by them, and especially because they lack the organs of articulate speech.

The "*I*," we said, only exists in so far as it asserts or posits itself. It does not follow from this that, if the assertion is suspended or interrupted, the subject falls back therefore into the condition of a simple subject. In a subject the formation of an "*I*" signifies that the subject's unity of consciousness has been reorganised in a new way. And the organisation of consciousness always reacts and in some manner preserves itself in an analogous organisation of unconsciousness. I not only possess my present experience, but also the past which I can recollect. Not only this, but that large part of past experience which I shall never recollect is not wholly lost, perhaps is not lost at all. It does not reach consciousness directly, but it makes itself of value by its action on unconsciousness, and hence on the

relations between this and consciousness. Thus of all the cognitions which I have formed there remains a trace by no means inefficacious, though not perceived.

The man is not always present in himself, nor always so in the same way. The "*I*" persists, however, in spite of its variations and intermittences. It persists as experience, as cognition, by means of the profound modification which it has produced through consciousness in unconsciousness, and which from the latter reacts on the former. We do not insist; everyone understands that the matter is so. To explain minutely how it is so would require a long discussion extraneous to our purpose. But though we have to content ourselves with indicating this, it must not be forgotten.

XI

Self-consciousness and cognition, inseparably associated, each in turn rendering the other possible, transform the activity and the feeling. They impose the activity and the feeling characteristic of the "*I*" on the activity and the feeling of the simple subject. In a law which he has formulated with precision, the "*I*" possesses a rule of conduct much more secure and more widely applicable than the expectation of the simple subject. The expectation depends entirely on custom, on the circumstances in which a subject has lived. It loses all its utility and becomes harmful when the subject suddenly finds himself in different circumstances. An animal which has learned to defend itself against its usual enemies is helpless if a new enemy arrives, &c. We, by means of some universal cognitions and certain others which are a common inheritance, can rapidly find our level in the newest and most difficult cir-

Transformation of values due to cognition.

cumstances. We succeed without much effort in discovering the arrangement of the facts we observe, even if it is not customary to us.

Man not only lives his feelings; he clearly distinguishes their characteristics and relations. He compares them, referring them to one another, and distributing them according to a scale of values. All this is quite different from a simple inert mirroring. Certainly if someone says, for instance, "My head aches," his head does not ache more or less because he has pronounced the judgment. But cognitions must be considered not one by one but in their entirety in connection with the entirety of the other psychical facts. So-and-so has a headache to-day because yesterday he ate something he liked. The known association of a pleasure with a pain suffices to diminish the positive value of the first, or even to make it negative. (By similar associations a food may be rendered distasteful.) Facts of this kind do not absolutely require cognition—(some nurses wean children by rubbing their breasts with wormwood)—but cognition multiplies and intensifies them.

I miss something at the moment when I want it. It is an inconvenience which displeases me. But if a value-judgment makes me recognise the unimportance of the inconvenience, my displeasure vanishes. Some people, it is true, are irritated by every little difficulty, and we call them unreasonable. Would it not be more just to recognise in them a greater delicacy of feeling? No; in them the feeling is excessive because it is not connected with cognition, or only very faintly. Suppose the value-judgment makes us recognise the inconvenience as serious. The displeasure becomes incomparably greater than if there had been no judgment. A shopkeeper, opening his till, finds no money

in it. Never mind; there is nothing to be paid out at this moment. More than once I have been out without a penny in my pocket, and have not minded at all. But to-morrow a bill falls due. . . . The displeasure is increased a hundredfold if we are forced to recognise the cause of the inconvenience in ourselves, in a mistaken value-judgment of our own. Then we are vexed with ourselves, we disapprove of and condemn ourselves. We pronounce a judgment which determines one of the most painful feelings.

It is clear in the "*I*" even feeling is under the influence of cognition. The feelings of the "*I*" which knows differ from those of the subject which does not know. Cognition modifies the feelings peculiar to the subject, and even the immediate physiological pleasures and pains. More, it becomes itself the root of other feelings. There are feelings which, to exist, must be known — valued. But they cannot for all that be reduced to pure cognition. A judgment can create a feeling, but only because it re-elaborates a material which is already feeling. If we make abstraction from every feeling, we have no longer real cognition, but an abstraction, cognition considered as a content of theoretic consciousness, and therefore devoid of value.

In order to experience remorse, a man must know that he has committed a fault. But the remorse is not the knowledge. A man whose consciousness was only knowledge would have neither remorse nor the concept of fault. Remorse and knowledge are two inseparable characteristics of one and the same fact. To reduce remorse to knowledge, or to believe it possible without knowledge, are two verbally different forms of one and the same error.

XII

The animal lives its feelings as values even if it does not value them. It wants and makes what efforts it can to be comfortable. But the value of the animal as a unity, its being on the whole comfortable or the contrary, can be reduced to the resultant of the simple feelings, determined by the intensity and quality of the same feelings, and by the relations of these with one another and with the other psychical facts. Therefore the animal, although the feeling constituted by the mode in which its activity is developed is not extraneous to it, finds itself as regards its being comfortable or otherwise at the mercy of the feelings it experiences, as it actually experiences them. It reacts (to a limited extent only as it lacks the aid of cognition), but against the causes of the feeling, not really against the feeling. Does it suffer? If it cannot remove the cause of the pain, it must abandon itself to the pain. Does it enjoy? It plunges into a pleasure without any preoccupations at all—its soul is nothing but that pleasure.

The person and the animal, associated in one and the same unity of consciousness.

And we? We behave too often like the brutes. In the man, by the side of the "*I*," there is always the animal, which often obtains the mastery. It is easy to see how. While the simple unity of consciousness exists without its being necessary to do anything to make it exist, self-consciousness is the result of an action and consists in an action. The subject (which is not yet an "*I*" but may become one) performs this action, though always in response to something in it that excites it, and supplies it with the means. And the "*I*," once formed, must incessantly renew the same action to maintain itself.

Action requires an effort which is always more or less toilsome and never entirely complete. The "*I*" always finds by its side the animal, never entirely subdued. In the unity of consciousness the field of the "*I*" is more or less extended, more or less strongly occupied, according to the intensity of the effort, and the actual conditions of the one consciousness. In certain rare moments consciousness is wholly or nearly absorbed in self-consciousness; in certain others, judging from our recollections, we might say that "*We*" were absent, and that the consciousness was wholly animal. It is not easy to distinguish accurately the parts of the "*I*" and of the animal, of consciousness and of self-consciousness.

The effort which the "*I*" must perform to make itself of value, to predominate over the animal, is rendered difficult by the intensity and the strong organisation of the animal feelings. My actual feeling is what it is. Cognition may modify it, as we have said, but, as we have also said, the influence of the simple cognition on the simple feeling is very slight. My knowledge that it is good for me to undergo a surgical operation does not prevent my suffering horribly. To obtain any result, we must oppose to the strong psychical organisation of the animal a still stronger organisation of the rational "*I*." But the organisation of the "*I*" can be improvised when we feel the need of it, and few care to prepare it beforehand, when it is not needed. With what intent, for what end, do those prepare it beforehand who do so? Man, one might say, cannot make a better use of self-consciousness or cognition than to use it for the advantage of the animal in him. To avoid suffering and to enjoy: this is what the animal desires. It desires it in a confused way and to a limited extent. As it lacks cognition, the animal cannot transform its

desire into a clear and fixed purpose. It cannot hold on to an end which requires complicated means if both means and end are not suggested to it by instinct. Hence it accepts, one might almost say with resignation, the fate to which nature has destined it, without trying to improve it radically, without representing to itself the possibility of a radical improvement. Birds are contented with their nests; they do not desire more sheltered homes, nor would they know how to make them.

Man also, like the animal, desires to avoid suffering and to enjoy. But the object of his desire is conceived by him as an end the means towards which can be pre-arranged and duly put in operation. Once started on this road, the man does not stop. Stopping would mean accepting sufferings which he could avoid, or renouncing pleasures which he could obtain. The same intelligence which allows him to construct his first rough cabin suggests how to improve it, and causes the need for doing so to arise. Needs increase, desires are multiplied and refined by the very fact that they can be satisfied by an intentional action. What was at first an end becomes a means to the attainment of ulterior ends. On the other hand by a movement which seems in the contrary direction, but is not so—like the eddies and whirlpools in a river which are a consequence of its downward flow—what were formerly simple means become in a certain sense and to a certain extent so many ends. The life of the individual and that of societies becomes increasingly complicated to an indefinite extent.

We know the result—I mean the result so far attained, which is certainly not the final result. It is our modern civilisation, of which we are so proud. And not without reason, in my opinion. It remains to be known if the *true* reason is that which most people imagine. We live more at our ease, with incomparably greater

refinement than our grandfathers and even than our fathers, much more so than savages. Is *this* our superiority? Could intelligence have served, *could* it serve for nothing else than to allow us to organise around us, artificially, that part of nature which touches us most nearly, to make of it a species of gigantic nest?

In fact what else could we ever do or try to do? Many can form no idea nor even understand how the idea of anything else could be formed. Among these some will be found who will wish to justify this belief, and will succeed by showing that to propose to ourselves any other end than that of making ourselves comfortable in nature is to hunt chimæras.

XIII

The values of the person and of the animal, associated as above.

But man ought to persuade himself (he has done so for some time) that the attainment of animal happiness is not possible for him. Animals may be happy after their manner. I do not know this, but I am inclined to believe it. They live from day to day with no care for the future. They give themselves up to nature, without trying to dominate it, and to instinct. They have limited desires. Their soul, as it would appear, is in a drowsy harmony, undisturbed by serious or lasting discords.

But man cannot be happy like an animal, because he cannot reduce himself to being an animal and nothing more. The "*I*" which is associated with the animal in him does not allow itself to be subordinated to it. If it does not dominate it, it torments it. It creates for it a number of wants which might be called fictitious if the leaving them unsatisfied did not cause serious pain. It suggests to it desires and fears without end. It imposes on it rough labour which cannot be interrupted without

boredom supervening. Man cannot be contented with the present because his life cannot be divided into loosely connected intervals. He conceives himself as a unity which persists amid the variety of happenings. He looks forward to the future, and wishes to make provision for it.

A secondary end which the "*I*" may propose to itself in the service of the body is perhaps attainable, the ultimate end not. A man wishes to grow rich. Provided he really wishes it, and knows how, he will succeed if fortune helps him. But what then? To have riches twenty years hence, that man now opposes himself. He conquers his indolence, bridles his intemperance, and eats the bread of affliction. Twenty years hence? Twenty years hence he will have to do the same, or else the riches he has won will become for him a source of evils worse than actual poverty. Either therefore. . . .?

Let us leave this. In any case, for his desire to be realised, the man must realise it. At every moment he must do what is done. Therefore he needs a number of cognitions, and above all a prompt and certain intuition. To fix for myself, once and for ever, a design, precise in every particular, cannot be thought of. Circumstances cannot be foreseen. Nothing but the end can be fixed. The means must be chosen or created, as need arises, with sagacious resolution. We must be capable of overcoming an obstacle, of profiting by an opportunity which may suddenly meet us. We must therefore connect together the activity and the intelligence, as a fencing master unites theory and practice so that he perceives what is necessary and executes it to meet any kind of attack.

But this cannot be unless I possess and dominate my feelings also. In overcoming obstacles I suffer and am weary. My body is hurt by things, my spirit by men. If I am afraid of these evils, if I have not the courage to face and disregard them, I shall accomplish

nothing. The same may be said of the evils which come upon me from every struggle. And I must not only master pain, but pleasure also. This is a more difficult victory, but a more important one. While I tranquilly taste the sweetness of repose, my rival passes me, and time, opportunities, strength, life, flee away. It is an old proverb "Qui studuit optatam . . ."

To dominate, to bind in one bundle, to make firm, to unite together, the intelligence, activity, and feeling—what does it mean? It means that the man has become conscious of himself, has become a person. The person, as such, possesses a value of his own. This is not the resultant of the simple feelings as it is for the subject (for the consciousness that is simply one and has not reached self-consciousness). It is constituted and created by the subordination of the simple feelings and their resultant to that higher unity which is the person. In conquering myself, that is, in imposing on the animal which is within me an "*I*" which dominates it, in being master of my animal feelings, that is, in hindering their violence from disturbing the equilibrium of my conscious life, I accomplish an act with which a feeling *sui generis* is associated as an essential element—the feeling which the "*I*" has of its own value. This feeling is not a distinct particular like the smell of a rose or a headache, but a form of the consciousness which the "*I*" has of itself.

XIV

To man his "*Self*" cannot but be of supreme importance. But this "*Self*" of so much importance to him—which cannot but be of supreme importance to him if he has developed himself in conformity with his nature, if he has attained to complete consciousness of himself, and which on that very account

Cognition as constitutive of value.

ought to be of supreme importance to him—is the "*I*," and not the animal associated with the "*I*."

Theoretic consciousness, activity, and feeling are elements of every subject. These (we repeat it for the hundredth time) are not three things like, for instance, three distinct sense-percepts, or a sense-percept, a recollection, and an act, which are together in the unity of the subject, but one of them can exist without the other two. They are three aspects or three forms of one and the same thing—three absolutely inseparable characteristics. Cognition, will, and the feeling which the "*I*" has of itself—the consciousness of its own value[1]—are correlative elements of the "*I*." Cognition, therefore, is an essential constituent of the "*I*" and of its value. It is itself a value, although if we consider it apart from self-consciousness, it appears to us devoid of intrinsic value. It concerns me for my own ends to know the truth, but what difference does it make to me whether the truth be this or that? But it is true that in this way we are considering not cognition but an unreal abstraction.

In so far as it serves as a means to the attainment of other ends, cognition has no intrinsic value. But cognition, besides being able to serve as a means, is an end in itself. If I wish to distinguish the universal characteristics of the elements of which I have consciousness, if I wish to formulate the laws which govern them, I must make an effort. The effort constitutes a positive or negative value, according as it succeeds or not. Success is the possession of the truth, the acquirement of

[1] I am speaking of self-consciousness, the cognition of self, which is inseparable from cognition of anything else—seeing that anything else is constituted by elements of fact which the "*I*" discovers in itself and in the single *animal* consciousness associated with it which it recognises as its own, and yet as distinct from itself or not exclusively its own, by means of their special characteristics and by the laws which connect them.

the cognition. Failure means ignorance or error. To know and not to know, or, worse, to err, are a good and an evil respectively, of which the "*I*" alone is capable, but notwithstanding this, or, *a fortiori*, a true good and a true evil.[1]

The "*I*" exists in so far as it knows, though, on the other hand, the knowing presupposes the "*I*"—all the "*I*." The defect of cognition is a defect of the "*I*," its increase is an increase of the "*I*." The good of the "*I*" can therefore be reduced to cognition, provided that in the cognition we consider the real successful effort. The bad can be reduced to ignorance and error. Certainly an ignorant man may be an honest man, and as such may have a great value, but the honest man, to be such, must know in what honesty consists. Therefore, although he lacks other knowledge (perhaps more difficult to acquire and therefore better compensated), he possesses a knowledge of primary importance.[2]

An "*I*" cannot be separated from the society of its fellows or from the world. Therefore it cannot acquire full consciousness of its own value and cannot realise it unless it knows its relations with its fellows and with the world. There are in these relations a number of particulars which might be different or vary without the value of the "*I*" being substantially changed. The knowledge of these particulars, without being negligible (what is negligible?) has only a secondary importance.

[1] We ought rather to say *the* good and *the* evil. This does not mean that good and evil can be reduced to moments of theoretic consciousness, as the imperfection of language and rooted habits might make us suppose. Cognition in the abstract—that abstract which is pure cognition—has no more value than a shape has weight. The body, which has the shape, has the weight.

[2] Certainly a man can fail to know the value of knowledge, can be without regret for his own ignorance. But we can deduce nothing contrary to the value of cognition from these facts whose explanation lies in the predominance, accidental or habitual, of the animal over the "*I*."

The essential stands in the structure of the whole, in its supreme law. Let us reflect on the radically different conceptions of the whole which are given us, for instance, by Materialism and Christianity. The value of the "*I*" cannot be the same, cannot fail to be entirely different, according to the truth of one or the other conception or of a third. Nothing else is needed to show us how important, how essential to the "*I*," it is to attain to a true conception of the whole.

XV

To arrive at this has been in all times the most lively aspiration of man. In fact, men who were really men have always been most devoted to religion. Indifference in this respect, which must not be confounded with the express rejection, made after considered reasoning, of this or that religion, is clear evidence, a cause and a consequence, of the decadence of the "*I*," of its subjection to the animal.

Value peculiar to the person.

Religion can be reduced to a conception of the universe. It is, by its content, cognition or supposition, a doctrine, although it may be justified otherwise than other doctrines are justified. A doctrine: this does not mean a collection of abstract formulas, inert formations of theoretic consciousness. To imagine that religion is a conception of the universe and morality (or worse, that morality constitutes an accessory to it) is an error. As there cannot be morality outside a conception of the universe, so there cannot be a conception of the universe outside morality.

I feel and know myself capable of a higher value. Necessarily, I strive towards it unless I consciously let myself be dominated by the animal which is in me.

How shall I strive towards it so as to be sure of not unconsciously letting myself be dominated by the animal within me, so that my value may really increase? The answer is given by a conception (assuming it to be true) of the universe. This constitutes under one aspect, *i.e.* under the theoretic aspect, the realisation of my highest value. When I know what the world is, and in what relation I stand to the world, I not only know what I ought to do, but I have done it, in so far as regards that action of mine which is the acquisition of knowledge. But to discover the answer, the conception must be obtained without making abstraction from the values. A conception in which we make abstraction from the "*I*" and from value will not make us know the value of the "*I*." We do not make out a merchant's balance-sheet by registering only the colours of the cloths he possesses. It will not make us know anything. A true conception is a successful operation of the "*I*." It is itself a value.

It is impossible to separate cognition from the activity of the "*I*." So also it is impossible to separate the activity of the "*I*" from cognition. I only know in so far as I work, but I only work, as an "*I*," in so far as I know how to act, in so far as I know what I am doing. The activity, clearly conscious of itself, of its ends and means, of the laws to which it must submit to make itself of value, to manifest itself effectively, is called will. It is essential to the will, therefore, to be enlightened by cognition, to be altogether one with cognition. In any case, considering that the subject is initially spontaneity and is transformed into an "*I*" by means of a manifestation of activity which must be incessantly renewed, we must recognise in the will a species of supremacy and primacy. We can say that the "*I*" exists in so far as it wills, that self-

consciousness is consciousness of the will, and that the value of the "*I*" is that of its will. In fact, when we judge ourselves or others we judge the will. The estimation of the will is the real and decisive estimation of the man.

The "*I*," like the subject, must manifest its activity in order to develop it, *i.e.* it must make itself active in the world. What does not work externally does not work at all (it does not follow from this that working only concerns the outside). Each of us has a hundred things to do; he has to maintain his family and himself, he has a profession to attend to, &c. And it may happen that we do not succeed in attaining any of the ends we have proposed to ourselves. Or, rather, this always happens. Who of us, unless very young, has not lost someone dear to him? How many do not have to depart, interrupting for ever the occupations to which they owed all their powers, and leaving, maybe, children for whom the abandonment may perhaps be ruin?

Failure to attain an end is always a pain. If the end was of supreme importance, the pain will be supreme. Good: we have learned to conquer pain. However things go, nothing can take from us the satisfaction of having done what depended on us to make them go well. We experience this satisfaction through having known how, by our vigorous and intelligent action, to connect firmly in one whole, *one* however varied, the elements of our consciousness and unconsciousness. It is the feeling which we have of our force, of our independence of every external force for what properly regards *us* —the feeling which we have of ourselves, our value.

XVI

To consider the doctrine summarised egoistic would be to misunderstand it altogether. Every subject enjoys and suffers; it has a value. But the subject, as such, does not know. It does not even know its own value; it simply lives it. The value of the other subject remains in consequence extraneous to it, except in so far as it reacts on its own lived value, modifies it, and becomes a qualification, an element, of it. An animal can have sympathies (in the etymological sense of the word), but is not capable of a truly disinterested affection. Although not selfish, it is inevitably self-centred without knowing it. I certainly live my value as a person in the incommunicable actuality of a feeling, to which its being known is essential (as, on the other hand, cognition must be the cognition of a feeling). That feeling, if it were not known, would be my value as a subject, not my value as a person. If cognition, in so far as it is cognition of a feeling, is referred to me alone, as cognition it can be referred also to another. My consciousness of myself has two faces, one exclusively subjective—feeling, which means also activity; the other indifferent and objective—cognition. For example, I touch my forehead. I also touch the forehead of the dear invalid who is watching me from her bed. The touching is double in the first case, single in the second, but, if I attend only to what my hand feels, I recognise no essential difference between the two cases.

Relation between the value of one's own person and the value of the person of another.

I only live my own personality. But I know there are others, persons equally with me, and therefore endowed with or capable of a value equal to that which I am capable of or endowed with. To recognise their

value—naturally without living it—is a *sine qua non* of my being able to recognise and hence to live my own, in order that my value may be realised and exist. In fact, a person is constituted by the fact that certain elements bound up in the unity of a consciousness reconnect themselves according to a certain law and subordinate themselves to the law. For consciousness of the person or of his value to exist—in other words, for the person or his value to exist—is impossible unless there be consciousness, *i.e.* in this case cognition of the law (the cognition need not be very specific). For a consciousness which had certain characteristics of a law not included in that consciousness would not be consciousness of oneself.

The value of which we are speaking is a property, not of the elements, nor of the one consciousness in which they were first grouped, but of consciousness itself in so far as it has transformed itself according to the law. Therefore it is not possible to recognise it in a particular consciousness, and not to recognise it in every consciousness which has transformed itself according to the same law. To say that certain stones, grouped together here according to a law, constitute a house, is to say that any stones whatever, grouped together according to the same law, constitute a house.

For another person's value to be unknown to me, my value must be only lived by me, and not known. In this case I should only be a subject and not a person. Knowing the value of another person, I may, however, not respect it—I may as far as I can, violate, diminish, and destroy it. So acting I may perhaps increase my own value as a subject; I serve, excellently if you like, the animal within me. But I violate, if I do not absolutely destroy, my value as a person. For this value consists just in the rigorous unity of action

(including feeling) and cognition. It disappears, or at least diminishes, if, by the predominance of the subject over the "*I*," the action frees itself from the laws which cognition lays down for it.

XVII

Therefore the doctrine summarised, far from justifying selfishness and self-centredness, excludes them. But, on the other hand, the values which it has led us to recognise are those of subjects and persons, and in every case of *individuals*. A value which is common *qua* value has not been found. Undoubtedly the individuals are not separated. Things, subjects, and persons have mutual relations; they constitute a whole.

Distinction between the values of the persons.

In particular, a sense-perceivable—the same numerically—may be common to two subjects, to two persons. But a sense-perceivable has no intrinsic value of itself. It has value for a subject in so far as it modifies the value which intrinsically belongs to the subject. Suppress every subject, and every value will be suppressed. Subjects, then, have value for what each one has of its own. Value, rather, is an element, peculiar, and essentially peculiar, to each subject.

Certain laws have universal validity. But the validity of the law, though essential to the value of the cognition, is not a value for itself or of itself. Cognition, if it were not cognition of a law, would have no value (or rather would not exist); its value is for the person who possesses it; it is part of the value of the person. If we eliminate this person, the only one (suppose) who has the cognition, the cognition and its values vanish.

It is essential to a person to recognise and respect the value of every other. But we cannot infer from

this that the value of persons is numerically one. All the persons, *qua* persons, each of whom is supposed fully developed, have values *equal* but numerically *distinct*. That they are distinct, though equal, results from this, that each person both knows and lives his own value, while he only knows another's. Hence it follows that the full actualisation of personality requires an effort which must be made by everyone, and of which everyone has separate consciousness. We, or many of us, have an inborn disposition to make the self central—a disposition towards egoism which we must overcome if we wish to be truly *We* (persons in the strict sense). The simple fact of such a disposition proves that another's value is not ours, although to recognise and respect it is an integral part of ours.

Some say—"Titius is a person, Caius is a person, &c. Therefore Titius, Caius, &c., *qua* persons, are all one, and the distinction between them depends on accidents which have nothing to do with the person. Titius, Caius, &c., have each a value in so far as each develops an activity; the particular way in which he develops it does not matter, provided that the activity be developed according to a certain law. Therefore the activity on which the values are based is numerically only one in Titius, in Caius, &c."

In this reasoning there is certainly an important substratum of truth. The *equal* presupposes the *same*. One and the same law valid for several different things presupposes, or rather is *per se*, something identical in the things. Now we have seen that one and the same law is the essential constituent of every person. But it is easy to see that the reasoning needs to be thoroughly examined to extract the good that is implicit in it, to understand its true meaning.

"Titius's headache is a headache, and so is Caius's.

Then the headache of Titius and that of Caius are one and the same, one headache only, and the irreducible distinction between the two consciousnesses of Titius and of Caius is a chimæra."

I do not assert that this reasoning has the same value as the preceding. I note that they both have the same form. Therefore, since the second is evidently not conclusive, the conclusiveness of the first is not proved by its form. We must examine the matter more accurately than we have done hitherto (here or elsewhere).

But can the distinction between the individual unities of consciousness be really illusory? The distinction, call it real or illusory, exists in the sense that it can be seen. And according to the last given reasoning it ought not to be seen.

Further, the distinction between the values and between the personal activities is even deeper than that between animal consciousnesses. The elevated consciousness of Titius and the degraded one of Caius cannot be more distinct than those of the cat and of the mouse which it eats because one "*two*" cannot be more "*two*" than another. But the difference of characteristics between the consciousness of Titius and that of Caius is more closely connected with the distinction between the two consciousnesses than the difference of characteristics between the consciousness of the cat which eats and that of the mouse which is eaten. To deny this is to fail to recognise what is precisely the most important point, that Titius is a worthy man and Caius a good-for-nothing. If anyone fails to understand this, so much the worse for him.

CHAPTER VI

REALITY AND REASON

I

If a judgment is true, that judgment is true. Of two contradictory or contrary judgments one is always false. And of two contradictory judgments one is always true. These principles are absolutely inviolable. Not that thought and reasoning are in fact always conformed to them. But thought and reasoning which are not conformed to them, although they may be real as psychical facts, are devoid of meaning and coherence. Their value seems only formal. We have enunciated three necessarily true judgments, three principles, from which, however, it would be impossible to infer the certain knowledge that any other judgment is true.

Formal laws of thinking, causal laws of happening.

If the judgment A is true, it is true. But is it true? Let A and B be contradictory judgments; one is certainly true, the other certainly false, but which is true and which false?

In conclusion, these principles are laws of my thought, or of thinking as a process which I accomplish. This thinking will or will not have an intrinsic coherence according as it does or does not conform to these laws. But the intrinsic coherence does not assure its validity in relation to anything else.

Evidently the said laws are not only valid for me. They are valid for every other reasonable man. This means that, in reference to thinking, men are like one

another, while they differ more or less in reference to psychical processes of another kind. This cube has six faces, eight vertices, and twelve edges. So has every other cube. The cubes A and B are like each other in one respect, while they differ in situation, in size, and perhaps in other characteristics. We can speak so as to make ourselves understood, or so that we might as well not have spoken. If we wish to make ourselves understood, if we wish something to be said, we must not contradict what we have said. In substance the principles referred to express no other law than this.

The persuasion, however strong and apparently well founded, that certain judgments are mutually consistent or inconsistent, is not enough to make the judgments really consistent or inconsistent. These relations, then, cannot be reduced to simple connections of fact between the affirmations that one makes, in so far as he makes them. A change of opinion must be justified in a different way from a change of taste.

With all this, the said laws seem laws of the subjective thinking activity, of *our* thinking—of the thinking of all, because of the thinking of each.

Relations also exist between facts—between things considered in reference to their variations, and also to their beginning and ending. But they are causal relations, differing from logical relations because facts are not judgments or reasoning. Happening independent of our thought is one thing, our thinking is another. A system of thoughts may be endowed with an absolutely intrinsic coherence, and have no value as a cognition of reality. For instance, we have ever so many geometries, all equally true as geometries, but only one, or perhaps none at all, can be true as the doctrine of that space in which bodies are extended and move.

It is true that whatever we know about things can be reduced to judgments, and therefore cannot be outside logical relations. But all knowledge implies as its essential element—without which what we say would not express knowledge—the distinction, the difference between the thing known and the knowledge we have of it. I say, for instance, "Warm a piece of metal and it expands." This also takes place when neither I nor anyone else knows anything about it. The causal relation between the heating of the metal and its expansion is quite different from the logical relation between the judgments; the metal is warmed, and the metal expands.

Without discussing the answer more deeply, let us notice that according to common thought, the causal relations between things or facts are quite different from the logical relations between opinions or judgments, and that things have only causal relations with one another and not logical relations. This point of view is perhaps never expressed, but it is implicit in the clear-cut distinction between subjective thought and reality independent of the subject. We have only rendered it explicit.

Let us deduce its ultimate consequence, and put it in its most precise form. One thing, if we neglect the causal processes which might connect it with others, might be annihilated without the others undergoing any modification, and it would remain unchanged if all the others were annihilated. We know well that one thing cannot change without others changing also. If the tumbler were not supported by the table or something else, it would fall and be broken. The sea, without the atmospheric pressure, would become vapour. If one thing changes, all others undergo eventually some change, though possibly a very small one. This, however, is due

to the causal processes which are actually in operation, but which we are neglecting. We know besides that it is neither possible to destroy one thing, nor all things but that one. But the principle formulated does not presuppose the destructibility of anything. Is there a logical relation between space and feeling? No. Then feelings would be possible even if the world were not spatial. They would remain the same (causal relations apart) even if the world lost (which is impossible) its spatiality. Of two things which have no logical relation between them and of which therefore neither implies the other, each would remain the same even if the other were not, or ceased to exist. Whether one of the things can or cannot exist is of no consequence.

Among the conceptions of the world, that in which the principle has its most explicit and coherent expression is perhaps atomism. Each atom is absolute, a species of material God, which exists by itself and suffices for itself. Of atoms there are many, but the existence of each is independent of that of the others, and does not include it as a constituent of itself. The connecting together of the atoms so as to form a universe, which somehow may be called one, is causal, not logical.

II

Logical non-independence of things: space.

The logical independence of things—we are now considering this independence in abstraction from causal relations—excludes the things having common characters. Let Titius and Sempronius be co-proprietors of the same field. The impoverishment of Titius, due to a hail-storm by which the produce of that field has been destroyed, does not *produce* but *is* of itself the same impoverishment of Sempronius.

Things have common characters. The atom A exists, so does the atom B. I predicate of both the same concept of existence.

Answer is made by distinguishing between the concept which is only one and the characters which, though identical, are as many as the things of which the concept is predicated.

Of course we do not reject what has already been established, *i.e.* that the concept is the character thought of—the character so far as we have distinct consciousness of it. Nevertheless the unity of the concept appears reconcilable with the multiplicity of the identical characters. This is red, and this other is red. The one red is not the other—in fact the one is here, the other there, the one is a character of a wax cube, the other of an ivory ball. But I separate each of the two reds from the other elements with which it is associated. The two, because they are identical, become indistinguishable after this separation. They constitute, in so far as thought of, one element only.

Let us accept the answer. And let us notice that if the characters of A and B are two, though identical, and each exclusively peculiar to the one thing, each would be annihilated along with the thing. And let us not oppose to this the impossibility of annihilating the thing, because we are not presupposing that the annihilation is possible. One thing, by our supposition, is logically independent of the others. Therefore the thing cannot be annihilated (which I grant), but in virtue of a requirement of its own, not because its annihilation would offend any other requirement whatever. That is to say, in considering other things, I can also suppose a thing annihilated, because the others have nothing to do with its existence or non-existence.

If a thing is annihilated, the characters which are

exclusively its own are annihilated with it. The same characters of the other thing remain unchanged, but those of the thing annihilated vanish. The thing which we have annihilated (or which we can suppose annihilated without any other change logically following), say A for instance, a sphere, of given centre and radius, red in colour. With the annihilation of the thing those characters, which are its existence and its redness, also vanish. For the same reason that other character—the spatial sphere (which is spatial only), with which A coincided—will likewise vanish—*i.e.* space will no longer admit such a sphere.

Now this result is absurd. Let M and N be two points in space (belonging to two things) such that the straight line MN cuts the said sphere internally on the segment MN. I ask if the distance MN is or is not diminished with the annihilation of A. If it is, then the annihilation of A had consequences (besides the eventual disturbance of the causal processes in which A took part—processes of which we have said nothing), or else it is not true that the other things were logically independent of A. If the distance MN is not diminished, the spatial sphere which at first was occupied by A still exists, and therefore it was not a characteristic exclusively peculiar to A, as we had supposed.

This last hypothesis, which is the true one, excludes the absolute logical independence of two bodies. Two spheres, spatial only, distinct, though of identical character—as, for instance, those occupied now by two identical billiard balls—are, though identical, *two*. But they are interdependent; they both exist in so far as there is one and the same space presupposed by both and presupposing both. Therefore they mutually presuppose each other, and are not logically independent of each other. And since the two spatial spheres are

characters of the two balls, it follows that the two balls also are not logically independent.

A body can be moved, distorted, compressed, or expanded; it is resistant, capable of being divided into parts, is smooth or rough; it has a colour, a temperature, also frequently a smell and a taste—properties or characters which are not comprehensible apart from extension in space, or which logically presuppose such extension. They also presuppose causal processes. A body has a colour in so far as it emits or reflects light, so becoming visible, &c. But the fact that causal processes are presupposed does not prevent spatial extension from being presupposed. Therefore, when once we have shown that bodies are logically interdependent in so far as they are extended in space, it can be shown that they are logically interdependent in so far as they are real, though it is true that to understand well the real connection we must take into account also the causal processes which we have hitherto neglected.

That logical relations exist between bodies in space has been shown.

On this subject we add some other considerations which are not necessary, but may be useful to some readers.

III

Logical interdependence of things continued: space.

We can suppose a material sphere to be removed, distorted, or even destroyed. Its annihilation cannot be causally effected, but is certainly thinkable, at least if we admit the mutual logical independence of bodies. But when the material sphere is removed, distorted, or annihilated, the spatial sphere remains. This cannot be moved, distorted, or destroyed. It is always the same. It cannot cease to exist.

"Abuse of language," say our opponents. "The spatial sphere exists in so far as we are able to consider it, and not otherwise."

I admit that the spatial sphere exists in so far as we are able to consider it. But the *being able to consider* is not the same as *considering*. Bodies have spatial characters along with others. Who doubts it? And when we make abstraction from the others, we certainly *make abstraction*, but in such a way that we come to consider certain characters of things, and to consider those only, but not to create them. Here is a wax ball which I suppose perfectly spherical (it may have the form of a sphere just as much as the other was supposed to have it). Let anyone try to draw a straight line on its surface. He will not succeed. Nor would he succeed if the operation were tried in another place at another time, nor yet if the ball were made of something else than wax, &c. This means that the spatial sphere, although it does not exist alone (by itself it is not a possible content of sensation or representation), has a requirement, and therefore in some way an existence. This existence (of whatever kind it be) of a sphere implies the existence of space, and therefore implies the existence of all the other spheres, of all the other figures.

All know that geometricians reconstruct space by means of certain postulates they make. They can reconstruct it in different ways. They can, that is, assume different systems of postulates, each free from contradiction. As from one of those systems, Euclid's, a doctrine can be deduced, interpretable in the sense of spatial experience, geometricians, who have, as such, no motive to attribute a preference to one system of postulates over another, consider each system as characteristic of a space. But that does not go one step

towards proving the possibility of a space other than the empirical one. One of those methods gives us, for instance, spherical space, in which infinite lines like our straight lines, each of which is determined by any two points, are not possible, nor are parallel lines possible. If a straight line runs along itself, a point which is invariably connected with it traverses, in Euclidean space, another straight line parallel to the former, whereas in another space it traverses a line other than straight (or what in the space under consideration corresponds to a straight line).

In short, a whole system of postulates determines space, in its totality as well as in every part. It distinguishes in it the possibilities (which are then necessities) from the impossibilities. It expresses its necessary requirements. Space has therefore a logical requirement of its own; it is not a collection of places and figures, but a rigorous unity. For instance, it would not admit this sphere (which I represent to myself and consider with its centre in this place and a determinate radius) if it did not admit a straight line (for the radius of a sphere is the segment of a straight line), and hence if it did not admit an infinite number of other spheres equal to the given one, of which any point in space could be the centre and an infinite number of other spheres, greater and smaller, and so on. Hence spatial entities are logically interdependent; each logically presupposes the others. To suppose one and not another is absurd, because if this other did not exist, the space would be different, and then not even the first could be what has been supposed.

Since the physical properties of bodies are inseparable from spatiality, the bodies, being spatially interdependent, will be interdependent also in their physical properties. The question whether the causal relations, hitherto un-

considered, can or cannot be reduced to logical relations alone remains undiscussed; but certainly the causal relations are not independent of the logical ones. There is a logical connection between all things that are given in space, referable to their being given in space. Space being logically connected in itself, all that is given in space is subject, for that very reason, to absolutely necessary laws; hence the whole collection of things becomes, under one aspect, one thing only.

We have gone beyond a vulgar conception and corrected it, but we have also in part justified it. The concept of a sphere is (in so far as it is thought) one concept only, but two spherical bodies have equal or similar characteristics (according as the spheres have equal or different radii)—not one and the same characteristic which is strictly common. That which gives a reason for the equality or similarity of the characteristics is the unity of space, which can be called common in so far as each part of it logically presupposes the whole, but which still has parts distinct from each other.

IV

Let us consider any two facts whatever. And let us fix for each the instant of a particular phase. For example, if we are dealing with the movement of a body (without intervals of rest), the instant in which the body has a given situation; if we are dealing with a body which is being heated, the instant at which its temperature has a given value, &c. Evidently also non-physical facts can be reduced to analogous successions of phases.

Continuation: time.

The instants thus determined, the one for one fact, the other for the other, will either coincide, *i.e.* will be one instant only, or they will not coincide, and one of

the two will precede the other. No third eventuality is possible. This means that any two facts whatever, no matter how different from all those of which we know anything and from each other, though they have no causal connection, direct or indirect, actual or possible, though they have no other connection of any sort, have yet a time relation with each other.

It may be that the respective durations of the two facts have no instant in common. In this case, however, one of the two facts precedes the other. The time in which the facts happen is rigorously one only, although each fact, to which we can assign an instant of commencement and another of ending, occupies always only a part of it, a very small part, absolutely negligible compared with the lapse of time.

For physical facts, the unity of space in which they all happen is enough, as we have seen, to constitute between them all logical relations which their physical happening cannot fail to satisfy. Physical facts which do not satisfy the laws of geometry are impossible. Physical reality and physical happening are something necessarily bound together—causal relations apart—by *one* system of geometrical or logical relations. In consequence, the vulgar persuasion that bodies and the facts to which they give rise are logically independent of one another, that the physical world can be reduced (either by existence or happening) to a jumble of elements, extraneous to one another and disconnected except in so far as causation accidentally connects them—cannot be maintained. The physical universe is really one universe, it is one thing and not a disorderly or unarranged mass of things, to each of which the others are not essential; one thing, which nevertheless does not exclude a great variety of intrinsic formations, inconceivable outside the unity which comprehends them.

The unity of time renders inevitable the extension of the aforesaid conclusions to facts of every possible kind. It establishes between facts—apart from causality and spatiality—logical relations absolutely irreconcilable with the supposition that facts can be independent, extraneous to one another, except in so far as causation accidentally connects them.

The extreme simplicity of the time-relations which can be reduced to those of simultaneity and succession must not lead us into error. Space has three dimensions, and therefore geometry is developed in an infinite series of theorems. The difficulty of learning it, together with its undeniable validity, makes everyone recognise its importance. Chronometry sums up in a few words what all know perfectly well, therefore no one pays any attention to it. But if it is too easy to be called a science, it is still no less valid than geometry, or, rather, it has this great advantage over it, that it is valid for all happening, while geometry is valid only for spatial happening.

Of two instants which do not coincide, one always precedes the other. A third instant which coincides with neither of the other two must precede the first, or follow the second, or fall between the two. An instant which precedes another precedes all those which follow this latter. Hence among the instants which follow a given instant, there is not one which precedes it; while a point which moves in a line, passing successively through the points A and B, *first* through A and *then* through B, and continuing its motion in the same direction, will, if the line is closed, pass again through A *after* having passed through B. Two durations which begin at one and the same instant are equal if they finish also at the same instant, otherwise the one which finishes first is the smaller. And between the equal or

unequal durations there exist the same relations as in general between equal or unequal magnitudes, and so on. Trite notions, but at the same time logical laws, absolutely necessary, of every happening.

V

There is a question which, as not strictly relevant, might be left alone, but it will be well to discuss it briefly. Let A, B, C, D be four instants which succeed each other in this order. Let us denote the interval AB by t_1 the interval BC by t_2, and the interval CD by t_3. We compare t_1 and t_2, calling them now equal, now unequal, and in the second case we establish between them arithmetically determinate relations. For instance, the interval between the time when the clock marks six, and when it marks eight, is greater than—precisely twice as great as—the interval between the time when the clock marks two and when it marks three. We ask how a comparison is possible or intelligible between two things which, although comprehended in time, are altogether outside each other.

The uniformity of time.

The hands of the clock move with uniform speed, and therefore in traversing the arc VI–VIII they will employ a greater time than in traversing the arc II–III, twice as great exactly. But how do I know that the hands of the clock move with uniform speed? Because I see them traverse equal spaces in equal times. The possibility of comparing two intervals of time, so as to decide if they are equal or unequal, is therefore presupposed by the proceeding with which we wished to give a reason for it. We are in a vicious circle.

All know that we cannot always trust the indications of a clock. To avoid possible errors each of us compares

from time to time the indications of his own timepiece with those of other clocks. The final criterion is given by the clock of some astronomical observatory. Astronomers, who in the matter of time are extremely particular, have clocks of very great precision, which they are constantly testing by means of observations of the heavens. It is a fact that we thus succeed in satisfying our own practical requirements and the more delicate needs of the astronomers. We end, that is, by only believing two times equal if they appear so to us according to a certain criterion roughly applied; they might not appear so to us according to the same criterion applied with greater care.

But the theoretical question "How do we know?" remains unsolved. For the criterion is in substance always the same. I who look at the clock, the astronomer who watches the stars, both call equal two times corresponding to equal spaces traversed by bodies *supposed* to have uniform speed (I suppose the rotation of the clock's hands to be uniform, the astronomer supposes the same of the rotation of the earth). Now the uniformity of a speed cannot be recognised by one who cannot recognise if two times are equal or unequal.

Let the instants A and B, between which the interval of time which we have called t_1 elapses, be marked by the respective commencing of two facts, M_1 and N_1; the instants C and D between which is t_2, by the respective commencing of the facts M_2 and N_2; and let M_2 be the repetition of M_1 and N_2 that of N_1. For instance, M_1 a stone beginning to fall, M_2 the same stone beginning to fall again from the same place; N_1 the stone finishing its fall, N_2 the stone finishing its fall for the second time. It may be, and perhaps generally is, true that the appearance of t_1 and t_2 as the durations of two complex facts, the one of which seems to be the repetition of the other, may lead

us to believe t_1 equal to t_2, but this belief is not a necessity. We *know* that the rapidity with which two facts succeed each other may vary between the two times at which those facts (supposed respectively equal) are realised. For instance, the fall of the same stone from the same height will require different intervals of time if the medium traversed is different. The rotation of the earth from which we obtain the sidereal day might be completed with varying speeds, or rather we know that its speed is diminishing, and we have succeeded in measuring with great accuracy its slow diminution.

VI

What do we conclude? That although our *recognition* of an interval is subordinate to our recognition of two facts (or two phases of one fact), which commence or finish respectively at the extreme instants of the same interval, we nevertheless *conceive* the interval independently of the facts which make us recognise it. For the ordinary man, a *day* means certainly the interval, whatever it is, between two successive sunrises. It signifies for the astronomer the interval, whatever it is, between two successive risings of the same star. But it is *impossible* that underlying such an empirical concept there should not be another concept, even if it be quite confused and only implicit. In fact, we understand and affirm as a possibility, or rather as a reality, that the day, understood as before, is *increasing* (owing to the diminution of speed of the earth's rotation). And this, which we understand and affirm, would be a mad extravagance, and would never have entered anyone's head, if that interval of time which *nowadays* elapses between two successive risings of

The uniformity of time: in happening; in thinking; number.

the sun or of a star were not always uniformly equal, whatever the velocity of the earth's rotation, or of any other variation whatever.

On the other hand, if we make abstraction from every happening, even from our subjective varying, it is no longer possible to speak of a duration which is divisible into parts; the word "time" has no more meaning.

Therefore time certainly presupposes a happening, but the real intrinsic duration of an interval is not constituted by any particular one of the facts which happen in it, for each of these facts might also last a longer or shorter time. With regard to each particular fact, the intrinsic duration of an interval is a simple possibility, just as for space, every point of space is the centre of a sphere of radius, r—that is to say, it can be occupied by the centre of a material sphere of radius, r.

To the question, "What is the reality of this possibility?" we answer in two ways. First, it is happening taken as a whole; not this or that happening, but all happening. In fact, a particular variation can be completed with greater or less rapidity, can last a longer or shorter time. The earth or this clock is losing. But a variation always loses or gains in comparison with some other; to suppose that all possible variations could be gaining or losing is nonsense. For this purpose what is presupposed by time is the universe —the universe in so far as it varies. The reality and the unity of time are the reality and unity of the universe — its uniformity is a law of the (variable) universe. Secondly, it is the consciousness of the cognitive subject. Time, as implicit in the consciousness which apprehends happening by the senses—time, which I apprehend in so far as I apprehend a certain varia-

tion—is not uniform. Two intervals, which are *really* equal, *appear* to me unequal if they are differently filled by those small parts of happening which are contained in my sensory consciousness. Five minutes waiting, when I am in a hurry, appear to me longer than an hour spent in agreeable conversation. If I did not make references (to a clock or something else), which are cognitions, the error would be insuperable, or, rather, it would not be an error. The uniformity of time exists in so far as I conceive it; it is a law of my conception, of my knowing, of the conception and knowing of every subject that is capable of it.

The two answers coincide. I know, in so far as a law, which in my sensory consciousness is only implicit, becomes explicit there. My sensory consciousness, be it understood, is consciousness of reality. A subject, whose sensory consciousness included everything real, would perceive, along with other facts, those which I perceive. But the sensory consciousness, being limited, is fragmentary. The laws which make themselves valid in it, which in such a way are implicit in it, would neither make themselves valid nor be implicit in it, if the sensory consciousness were not connected by way of unconsciousness with the totality, with the unity of happening, in which alone the laws have their foundation and fulfilment. Therefore to know, to gain explicit consciousness of a law, always means on the part of the subject to pass beyond the limits of its own sensory nature, and to raise itself to the unity of the whole. That a man should know more or less, and be more or less clearly conscious of the philosophic value of what he knows, is of small importance. In other words, the laws of my subjective thinking and those of objective happening coincide. I strive to connect in one system the facts of which I am con-

scious. For such a purpose I must reconstruct them, subjecting my activity in generalising, asserting, denying, and discussing, to those same laws by which the facts are regulated, which laws are implicit in my consciousness, and are rendered explicit in it precisely in this way. Between the laws to which I must conform as a thinker, which I formulate in so far as I conform to them, and those which regulate happening, there neither is, nor can be, difference. Otherwise there would be no knowledge.

The uniformity of time is at once a logical and a real requirement—real in so far as logical, and logical in so far as real. It constitutes another proof of a logical character essential to things, of their fundamental unity.

Let me say a word here on number, which we are accustomed, perhaps rather capriciously, to connect with time. Distinct things, distinct facts, can be counted. In order that we may be able to count elements, each must be considered as an *element*—that is, we must recognise something common to all. Different things, *qua* different, cannot be counted. So-and-so is twenty years of age, and has ten pence. No one can say that he is or has thirty. . . . Thirty what? Numbers are concepts. Arithmetic is a purely rational science, and can be constructed without regard to reality. Nevertheless it is valid for reality, but under certain conditions. If the number of the elements varies intrinsically according to a law of which we take no account, the applications of arithmetic fail. But this means that the science of reality cannot be reduced to arithmetic only, not that reality can contradict arithmetic. Finally, number as a concept (as a purely mental operation) and number as a characteristic of a group of elements strictly coincide. We can discuss (without reason, in my opinion) if shape, extension, colour, and sound *really*

exist in reality, but that four is only the way in which I conceive the hoofs of a horse and not a characteristic of that multiplicity, the horse's hoofs, is a senseless supposition. Arithmetic therefore implies a *certain* unity in things, a rationality which makes itself valid in things, rigorously the same both in reality and in our thought.

VII

We are essentially active and passive, alike with respect to the external world and in ourselves. In working we encounter obstacles which make an impression upon us. And the strictly psychical facts, those exclusively our own, are mutually modified and so bound together both in the field of consciousness and in that of unconsciousness. The subject only feels its own reality in so far as its living consists in a causal connection of facts. It only distinguishes external facts as real from its images of those facts in so far as it apprehends that those facts modify its consciousness and modify one another. The "*I*" knows its own reality and that of the external world only in so far as it renders itself explicitly conscious of those relations of dependence which the simple subject only lives.

Causal relations and logical relations: their difference.

Intrinsic causal connection is therefore a constituent of reality *qua* reality. Hence it follows that, to get to the bottom of our knowledge of reality, we must get to the bottom of our knowledge of causal connection. Causal connection is a connection between facts, between concrete objects. Mental phenomena, concepts and judgments, are outside it. To have a concept and to pronounce a judgment are real facts of a determinate subject, and are subject to causal connection, but the causal connection of these psychical facts with others, or among

themselves, is not to be confounded with the logical relation between concepts and judgments. Between real facts, on the other hand, there are logical relations identical with those which are valid for pure mental phenomena.

The reason why logical relations are possible between concrete objects was indicated when we discussed space and time. In the end they are reduced to this, that the characteristics and laws of reality are concepts and judgments. We add a couple of examples. The moon, which is illuminated by the sun, revolves round the earth in a circle which excludes the sun. Hence it follows that the moon, seen from the earth, must possess its well-known phases. Geometrically, let a sphere be divided by a plane into two hemispheres α and β (one illuminated, the other dark), and by another plane into two other hemispheres γ and δ (one visible from a given point, the other invisible); then γ will be divided into two parts fully determined by the position of the two planes, and belonging, the one to α, the other to β. The geometry of concrete objects is still always geometry. Or I say $12-7=5$. I formulate a logical relation between concepts. But if I have twelve pennies in my pocket, and spend seven of them, it is certain that on counting the pennies which remain I shall find I have five exactly. The arithmetic of particular concrete objects is still always arithmetic. Naturally for arithmetic to be applicable to particular concrete objects, those objects must satisfy the postulates of arithmetic. In our case, the pennies must be invariable, and only leave my pocket in the operation considered. The application of geometry also is not altogether without conditions, but when we deal with external reality it is less conditioned, as external reality is always spatial.

One fact, therefore, may be the logical consequence of another. Since that is so, and is made clear, we

understand the reason, absolutely unexceptionable, why one fact is necessarily followed or accompanied by another. We understand that the two facts (or all those between which there is a relation of the kind indicated) can be reduced in the end to one and the same fact.

But the connection between two facts is not always of the kind indicated. A body expands when heated. Why? A physical law is a judgment which falls under the dominion of logic, like every other, in respect of its connections or relations. But we ask why the law is valid, why the judgment is true. And we can only answer by an appeal to immediate evidence, as for the axioms, and not with an apodeictic proof, as for the theorems. The law uniting temperature and volume is not the same for every body and not even for the same body at different temperatures (water between zero and 4° Centigrade contracts when heated). To understand its reason, we must know much more than we do about the nature of bodies and heat. Or perhaps no knowledge would suffice. The laws of gravitation are valid apparently for all bodies under all circumstances. They are the most like geometrical laws of all the physical ones. We are still so far from knowing the reason of them that we can without apparent incongruity suppose them conditioned or approximate.

Beyond logical laws or those of cognition, intrinsic to the cognitive activity, which the cognitive activity can formulate for itself without regard to elements of fact, there are physical laws, or laws of happening, intrinsic to an activity other than the cognitive, and which the cognitive activity must derive from elements of fact. Psychological laws too, although different from physical laws, are, like these, distinct from logical laws. They also are laws of a happening.

Facts are causally connected with one another in so far as their simultaneity and their succession are regulated by physical or psychological laws. In physics and in psychology we cannot neglect the consideration of a *something* on which the interference of facts, or rather happening, depends—force or energy. On the distinction between these concepts, and on their different determination according as we speak of physical or psychical facts, we need not linger; but, on the whole, force or energy signify together reality and cause.

One fact can be the consequence of another; it can also be its effect. We must distinguish between these two relations.

VIII

The common conception of cause.

When we say that a fact A is the cause of a fact B, we mean in the first place to exclude the relation between the two facts being purely logical. B cannot be deduced from A without our supposing certain laws which are laws of force or energy, not merely logical but causal. Thus the concept of cause is primitive; it can neither be eliminated nor reduced to anything else. We mean, further, that B, although it cannot be deduced as above, is always realised when A is realised, and never realised when A is not realised—*certain determinate circumstances being supposed.* This condition is most important. In fact, it is not true that the happening of A is a necessary and sufficient condition of the happening of B, whatever be the circumstances. A sheet of glass may fly to pieces even if it is not struck by a stone (for instance, from inequality of temperature in the different parts). It may escape being broken even if struck (supposing the stone to have very slight velocity). Nevertheless I assert the blow of the stone to be the cause of the breaking;

I mean that in those circumstances the breaking would not have taken place without the blow of the stone.

In substance, when we assert a causal connection between two (or more) facts, we assert at the same time, at least implicitly, that the other anterior or simultaneous facts have no causal connection with the group we are considering. The other facts might also have been different within certain limits without the connection of the group being altered. If those "certain" limits (very vaguely conceived as a rule) had been passed, "other" facts also would have taken part in the process, and its result would have been different. But the limits would have been changed, not suppressed. In any case a number of facts would have remained extraneous to the causal process under consideration.

The common concept of causal connection seems inseparable from that of disconnection. It will be well to consider this point. Let us suppose that all varying can be reduced to the eventual verification of the facts A and B. If A happens, it is always followed by B. If B happens, it has always been preceded by A. A very simple induction would enable us to recognise at once that A and B are connected by a fixed law. But we must take account of the variable circumstances. Now if the varying of the circumstances could be reduced to the happening or not happening of a third fact C, which was simple like A and B, an induction scarcely more complex than the preceding would enable us to recognise if a variation of the nexus AB follows or not on the appearance of C. But instead of this, circumstances vary infinitely. We are very far from knowing them all; we are only sure that the same circumstances are never repeated. Hence we could not arrive at anything, if we did not make, so to speak, one bundle of all except a few, considering them, though

variable, altogether inefficacious and unconnected with the happening under consideration, as contrasted with those few which we take into account. If what happens in the farthest spaces of the heavens, or, for the matter of that, within two paces of me, with the exception of a few facts, could have influence or not on the breaking of my window pane, I could know nothing of the causes to which to refer the breaking of the pane.

The distinction between the concepts of logical and causal connection, and the inseparability or correlativity of the concepts of causal connection and disconnection, enable us to understand the origin of the concept of "force," so obscure and nevertheless essential to that of cause, or one with it. They help us to understand how we have come to conceive of reality as an aggregate of things, independent among themselves, except in so far as one eventually exercises its "force" on another.

Two bodies move, one here, the other yonder—each on its own account, quite independently. There is nothing yet to distinguish the two movements as real from the movements represented or thought of two geometrical solids. But in virtue of their movements, the two bodies tend to occupy the same space. This is impossible, for the bodies are real—that is, impenetrable. Therefore a physical collision follows the geometrical contact. Both bodies cannot continue to move independently as before; the one disturbs the other in a way which will depend on the nature of the bodies; latent forces are let loose, energies are transformed. Something new, no matter what, is *produced*—produced by the accidental interference of elements which are essentially unconnected, as in general we consider all the elements of the universe unconnected, unless there is immediate evidence of their connection.

IX

This fragmentary conception of reality and happening —a conception of which atomism constitutes the most rigid expression—is not confirmed by experience. No servant-girl will believe that to make water boil—the same quantity of water, at the same initial temperature, placed in the same kettle on the same stove—a little more coal is required on the ground floor than in the attics, and that the boiling water has in the first case a slightly higher temperature; and yet it is true. Galileo never suspected that the oscillations of the same pendulum have different durations in different places (at different latitudes); and yet it is true.

Logical unity and multiplicity.

No facts happen which can strictly be called independent. Yet it is true that all facts are not connected in the same way. We say that the facts of one group are causally connected with one another and unconnected with facts not belonging to the group. Exactly so, the connections between facts of the group are manifest to anyone who has sense and reason, whereas the connections with external facts only become manifest after delicate observations and reasonings of exceptional power.

The orbits described by the planets of the solar system can be considered independent of one another with an excellent approximation within certain limits of time. Taking into account their mutual dependence and regarding them as independent of every happening external to the system, we have a much closer approximation, on which at present we cannot improve. The attractions of the stars on those planets cannot be calculated, and they do not give rise to observable

disturbances, but no one doubts that they exercise some slight influence capable of being observed in time.

Many actions—or their variations—remain unnoticed, not only because they are slight, but because they require time, sometimes a very long time, to propagate themselves. Light, rapid as it is, takes perhaps thousands of years to reach us from certain stars. There is therefore a two-fold reason why certain groups of facts appear to us independent. The disturbance in one group which follows that in another is often unobservably small, and occurs too late for us to refer it to its true cause.

Moreover, the fact of time being needed for the disturbances to react from group to group seems to exclude the idea of the facts constituting a system which is truly *one*. We have a bar of steel of convenient length. We strike it at one end with a hammer, the blow being in the direction of its length, and strong enough to determine a displacement of the bar. A time will pass, measurable though short, between the striking of the blow and the movement of the other end of the bar becoming noticeable. This proves that the bar is not absolutely rigid, is not strictly of one piece like a geometrical solid. In a geometrical solid, a movement impressed on one point would not be followed *afterwards* by a movement of the whole body; it would have the movement of the whole body for *immediate* necessary consequence.

Analogously (we may say) if facts constituted a real and true unity, the disturbances would not take time to propagate themselves from group to group; but a disturbance in one group would have for immediate necessary consequence the disturbance of every other. It would not *produce*, it would *be* the disturbance of every other.

Certainly the fact that time is required for the dis-

turbances to be propagated proves that the groups of facts and the single facts are distinct realities. This is evident by itself. The world which appears to the subject, the subject to which the world appears and which is also an element of the world, are not illusions; they are reality. I who write, the pen with which and the paper on which I write, my writing, are elements of fact, distinct and different, which cannot be reduced to a unity if the reduction signifies the abolition of the distinction and diversity. We are dealing not with abolition, but with comprehension. We say that the distinctions and the connections which we observe, considered as we observe them, the contents and facts of the subjective personal consciousness, would become just so many absurdities if we did not admit that they form a true organic unity without losing anything of their observed distinctions. The reality of the distinct facts requires that the whole cannot be reduced to a simple chaotic aggregate of them—it requires the whole to be one. But the whole, being the unity of distinct objects, requires in its turn the several distinct objects. Thus, for instance, the facts of my conscious life (I am speaking of facts exclusively mine) would not happen if I did not exist, and conversely I should not exist if they did not happen. The impossibility of reducing me to an aggregate of feelings, volitions, recollections, &c., does not suppress the distinctions between these facts—it justifies them and presupposes them. The unity of the universe does not exclude an infinite intrinsic variety. The unity of the real universe, which includes time and happening, must not be confounded with the unity of space. Yet space also, though one, or rather because it is one, implies the infinite variety of figures, which in their turn imply the unity of space.

X

Logical presuppositions of causality.

The common opinion that causal connections are not essential to things and facts, but accidental and violent—understood as it is commonly understood by ordinary people—is not an error. The water of a brook runs independently of everything else if a stone does not roll in or is not thrown into its bed so as to do it an evidently accidental violence. The ordinary man does not construct a metaphysical or natural philosophy. His judgments have no function other than to formulate distinctions, and they are true provided that the distinctions formulated are distinctions of fact. It is we who commit the error if without criticism we attribute a doctrinal value to the judgments of the ordinary man which in his intention are only simple descriptions and statements of a practical character.

In the world things exist and facts occur which can be distinguished. They are, therefore, so many distinct phenomena, and have a certain mutual independence. In so far as one thing is not another, and one fact is not another, in so far as each thing and each fact has something of its own, it constitutes up to a certain point something individual. A thing exists, a fact happens, let other things and facts be what they will. The causal connections, the mutual interfering, conditioning, changing, and determining, are, in relation to each thing and each fact as something individual, an accident, a violence that comes from without.

This also requires time to effect and propagate itself. As far as A and B are in a certain sense—that is, under a certain aspect—independent, it is clear that they will not modify each other if they do not pass from the con-

dition of independence to that of interference; if they do not, for instance, come in contact, and this requires time. B, being modified in sequence to having interfered with A, will modify C, if it interferes with it, otherwise than it would have done if it had not been modified. There will be in the interference BC a trace of the preceding interference AB, and so on.

The interference AB will in the end have some reaction, however slight, on every thing and every fact. But this will need time—a very long time. And the fact that time is required, in order that the disturbances or the changes due to interferences may be propagated, implies—as we have noted—that distinct phenomena, partially observed by us with more or less accuracy, are real, and have a relative independence, that the universe is not so much "*one*" as to exclude all intrinsic multiplicity.

All this is beyond question. But a question arises which the average man neglects, and the physicist and the psychologist can also neglect to a certain extent, but we must study it if we wish to arrive at a conception of the universe. Interference supposes real distinct phenomena which interfere. In so far as the elements which interfere are real and distinct, the interference is not essential to the elements themselves. It is therefore accidental, violent. But would it be possible, if the elements between which it takes place were not bound together by *essential* relations other than those determined and produced by the interference?

Suppress distinction or declare it illusory, and you will have suppressed interference. But suppose distinction to be clear-cut and absolute—make of every thing and every group of facts as it were a world in itself, which can exist and vary according to certain laws of its own, exclusively intrinsic, peculiar to it, outside every-

thing else, outside every other group of facts—you will then have suppressed interference also. Or, rather, you will have suppressed distinction by exaggerating it. In fact, distinction also is a fact of interference. Certain elements A, B, C . . . Monte Mario, the house, a friend, the sound of a bell, the variation of the temperature and the light,—I can distinguish them all from one another and from myself. Could I distinguish them if they were not all included, even if not entirely so, in the unity of my consciousness? In so far as I am conscious (we should come to the same results if we took account also of unconsciousness), I am that particular unity of consciousness, a unity which is not separable from the elements of which it is the unity. I am therefore, though not exclusively, A, B, C . . . and nevertheless I distinguished A, B, C . . . from one another and from myself. "Nevertheless"? Nay, for that very reason. If A, B, C . . . were *absolutely* distinct from me, were a world apart from that other world, myself, they would not be constituents of my consciousness, of me. I should not distinguish them, nor should I myself be what I am. Distinction is neither illusory nor absolute. It exists in so far as it is not absolute, and it is not absolute in so far as it exists. Real interference presupposes at one time both the reality of the distinction, and that the distinction is distinction only, and not clear-cut separation, full and absolute independence.

Let us see how these conclusions are confirmed by a summary examination of mechanical happening.

XI

Every body has shape, extension, and position. All this presupposes space—all space, not only that which is occupied by the body; space which is the same for

every body and essentially one. We have already noted that space and time imply and express a certain unity of the universe, and that the unity of each excludes the clear-cut separation, the absolute mutual independence, of bodies and of facts. But the essential relations established by space and time are relations between abstract characteristics of reality; it is not quite clear how they are relations between realities *qua* realities. Causal connections are characteristics of reality. While these in their self-realisation confuse, so to speak, what was distinct, suppress certain distinctions and produce others, and, in short, make out of distinct phenomena a unity which goes beyond the distinctions, on the other hand they presuppose a unity underlying the distinctions—a unity which is not due to the causal connections but is a condition of them, a unity essential and fundamental.

Essential relativity of the distinct concrete objects.

A body moves independently (as it appears) of every other. It moves in a straight line with constant velocity. For the motion to be real, the moving object must be real, and not merely have the geometrical properties, form, extension, and (variable) position, but also a mass. A determinate mass moves with a determinate velocity; *i.e.* a certain quantity of kinetic energy exists, a cause capable of producing an effect.

Capable of producing it, therefore essentially, necessarily, relative to something else. For any element whatever, A, in so far as it is considered by itself, may well possess a capacity of preserving or modifying itself, but never that of producing any external effect. (We do not dwell on the absurdity of considering an element by itself. The act of considering supposes a subject that considers and an object that is considered, and establishes, if it does not presuppose, a relation between

them.) The capacity of producing an external effect implies something external on which the effect is produced. The assertion, "A moving mass constitutes an energy" implies this other, "The existence of one moving mass only is absurd."

It will be answered, perhaps, that the energy constituted by masses in motion is an intrinsic capacity of the mass. Movement, in fact, perpetuates itself. But the answer is insufficient, for two reasons. First, the movement always perpetuates itself, whether the mass and velocity are very great or very small. Therefore it is absolutely impossible to recognise a difference between any two kinetic energies whatever, each considered by itself. But differences are recognised, or mechanics would be impossible. Therefore a kinetic energy is never considered by itself, not even when we think it is so (saying, the energy is *so and so* independent of every other).

Secondly, the movement of a mass cannot be only capable of preserving itself. For then the movement of one mass would never be capable of modifying that of another. And the accidental or violent interference, from whose characteristics we pretend to infer the absolute independence of distinct objects, would be impossible.

Aut . . . aut: either two kinetic energies can interfere, or they cannot. If they cannot, let us close this book, and every other; let us not speak of the universe, or of things or single facts, of reality or of illusions. Let us cease to observe and to think. If they can, then each kinetic energy is intrinsically, *per se*, relative to another, to something else. The possibility of interference is not a product of the conditions (collision, for instance) which occasion the actual interference. It is something presupposed, without which the conditions would be inefficacious. Energies which can interfere

are not elements, each of which has a separate existence of its own. One exists in so far as there are others, in respect of which it is energy.

For a collision to take place, it is not enough that there are two masses in motion which tend in virtue of their motions to occupy simultaneously the same space. The masses must also be, at least to a certain extent, impenetrable. Is it necessary to say that impenetrability—the property which a body has of not admitting other bodies into its space—is essentially relative? In other words, that to say "A body is in itself impenetrable (on its own account)" is as sensible as to say "Such a body is ten yards away, not from something else, but from itself. This distance constitutes an intrinsic and exclusive property of its own."

Similarly, a body has a temperature; that is, it determines in an animal an impression of cold or heat, in another body a variation, on the nature of which we need not dwell, but which in its turn determines a variation of volume. If we make abstraction from these or other such external effects which are possible (or rather real in every case), no meaning can possibly be attached to the word temperature.

It is useless to say more. All that we can know or suppose of any distinct object implies always some relation which it has with something else. Distinct objects exist, but each presupposes the others, and all suppose the unity of the whole. Outside this, real distinct objects, causally connected with one another, are no longer possible. That concept of a distinct object which remains, after making abstraction from the unity, is no longer the concept of a real distinct object. It is only the concept of one of its characteristics (that of being a distinct object) which is really inseparable from the others.

XII

Unity: rationality immanent in the distinct things.

Now we can understand with some clearness the resemblance and difference between effect and consequence, and form a first concept of causality —which is as much as to say, of reality—a concept, that is, which can be indefinitely improved and integrated, which is nothing but a rough sketch, but which is definite in its outlines, however insufficient they may be. The general outline that a painter has traced of a portrait is not the completed portrait, but is an element of it, which can be completed by other elements but cannot be abolished by any.

The universe includes a great—an infinite—number of particular distinct formations. There is not—at any rate we have so far failed to discover—any motive for supposing that there is any part in the universe not occupied by the said formations.[1] Hence it would appear that we ought rather to say that the universe consists of the said formations. But to express ourselves so might make one believe that the universe, in so far as it exists, in so far as formations exist, is an aggregate of formations, as a wall is an aggregate of stones to which the existence of the wall is not essential; whereas, every formation presupposes the universe of which it is a formation, from which it is absolutely inseparable, as the eddies which are formed in a river presuppose the river and are inseparable from it. They are distinct objects, but subordinate to the whole in which they are included.

[1] This spatial language, for which it would be difficult to substitute other terms, must not make us suppose that the universe has only spatial characteristics.

Each single formation is a fact of consciousness, one of those facts of which we are conscious, or in any case a fact of which we might be conscious if we lived under different conditions. Reality and fact of consciousness are the same as far as we have seen. Evidently it is not necessary, nor even conceivable, that each formation must be included in some particular unity of consciousness, as the colours are, for instance, which I perceive. As, however, all formations are facts of consciousness, their unity—that is to say, the universe—can only be a kind of unity of consciousness.

On the characteristics of this superior unity, which for the present we will call the One, we shall say something and give some reasoned account, in the following chapter. For the present let us note that the fact of the One being a sort of unity of facts of consciousness does not imply *eo ipso* that the One is conscious like a person or a subject. For not even those facts which are bound together in the unity of a particular subject are all bound together in the unity of the self-consciousness—some subjects are not conscious of self at all—nor yet in the unity of consciousness taken in the strictest and most proper sense. Besides the unity of consciousness properly so called, we have recognised in a subject a particular unity of unconsciousness. The constituent unity of the universe, the One, might rather be comparable to a subject's unity of unconsciousness than to his unity of consciousness. Moreover, we cannot deny the essential incongruity of all such comparisons.

For every subject, whether considered in self-consciousness, in consciousness, or in unconsciousness, is still always a formation of the One and in the One. Whereas this is not a formation, it necessarily includes itself, but neither includes nor presupposes anything else. The One is certainly a unity of facts of con-

sciousness, but might well not be a unity of consciousness in any sense analogous to that which the phrase has when used to characterise a particular subject.

The unity of the One does not exclude the multiplicity of the formations—or, rather, it includes and requires it (as the unity of the subject includes and requires the multiplicity of its facts)—but it is not less strict on that account; rather it is stricter than the unity of the subject. This is a point which has been proved too often for it to be convenient to insist on it again, but it must not be forgotten.

The formations, as included in the One, as *its* formations, have all something in common. This does not imply anything mysterious, but simply that the One underlies each of them, as the whole its parts. Two eddies in a river have in common that they are eddies in the same river. But the mass of water which revolves in the one and that which revolves in the other are not a mass numerically one, whereas the One is numerically one.

The unity of the One, underlying and *common* to all the formations, gives a reason for what we recognise as *equal* or identical in them. Thus, as we have seen, the unity of space gives a reason for the equality between distinct figures, the unity of time for the equality between distinct intervals, and analogously in all cases without its being necessary to go into more minute particulars.

Now, what is common, what can be predicted univocally of as many concrete objects as we will, is the concept. And the relations between concepts—relations which in the personal consciousness are rendered explicit in the form of judgments—are rational truths. Therefore the One—the reality underlying its formations, their essential fundamental constituent—is on that

account a reason immanent in the formations themselves. Happening obeys and signifies rational laws. Rationality is immanent in the formations of the One *qua* formations of the One. We are not treating of laws which make themselves obeyed and valid in a field distinct from their own, like human laws by which wills are disciplined, though perhaps rebellious and indifferent. Formations are conformed to the laws because to their existence as formations it is essential that they should be conformed to them.

Being intrinsically one, all reason is immanent in each formation. Hence it is also immanent in each subject. The distinctly conscious subject can render the reason, which is immanent in it, distinct and explicit in its consciousness. It can know. From this an immediate consequence is derived. The reason that we give ourselves of facts is rigorously one with that which is immanent in the facts or by which the facts are regulated.

The knowledge that each of us can obtain for himself is always limited, partial, and fragmentary. No one succeeds in rendering fully explicit the reason implicit in his unconsciousness. Reason, in fact, is rendered explicit in the personal consciousness by way of discourse, and to resolve the intrinsic unity of reason in the thread of a discourse is like wishing to express oneself in an inadequate language, or like wishing to extract the root of a number which is not a perfect square. But the reason which becomes explicit in consciousness is still always reason. Our knowledge therefore, though always necessarily incomplete, is endlessly capable of increase and improvement. Where it makes a step, that step is definite. We do not arrive at truth without fatigue, but, when once we have arrived there, it is truth at which we have arrived. This may seem a play upon words, but I cannot express myself otherwise.

XIII

Causal connections partly require and partly exclude the idea that the single concrete objects, the formations of the One, constitute a rigorously logical system.

Spontaneities necessary elements of variation.

How are we to escape from this antinomy? There is only one way, as it seems. Besides the variations logically determined by other variations, there must be those which are not determined at all, that is, which have no logical reason in others—variations absolutely initial. That variations of this kind occur is proved by the spontaneity of the subject. Note that spontaneity is not a privilege of developed subjects. Rather it seems simpler and fuller, the simpler and more embryonic the subject is. Now everything leads us to believe that there is an infinite number of these embryonic, primitive, tiny subjects. What we call inert matter might in the end be reduced to an aggregate of similar subjects. Evidently a subject reduced to this its most simple expression has very little resemblance to a man or even to a brute. Perhaps it is not even a unity of consciousness, but only a unity of unconsciousness, a unity of psychical facts which are realised outside of every known form of consciousness,[1] a pure centre of variation whose foundation must be sought in the centre itself.

However the One produces in itself this multitude of centres in which its creative virtue participates in some way in a very limited degree, it is not what we are seeking, but we see that by their means the antinomy of which we spoke has been overcome.

The varying of a centre of spontaneous activity is

[1] Consapevolezza.

certainly neither the consequence nor the effect of another variation, or it would not be a spontaneous action. This varying has effects. It consists, as we noted at the time, in interfering with other analogous activities, and in modifying them and itself.

The interference—we noted this also—would not be possible if the spontaneous variation and the more or less spontaneous one with which it interferes were not included in the logical unity of a system. Since, however, the interference is rendered possible by such a unity, the results, or let us say the consequences, will be determined not by this unity alone, *i.e.* not only by the rational laws which constitute it, but also by the characteristics of whichever of the two activities is spontaneous (of both, if both are spontaneous)—characteristics which have their root in the spontaneity, not in the logical unity, of the whole.

Those variations which are logical consequences of other variations are of necessity contemporaneous with these. More exactly, if all the variations were the consequences of other variations, there would be no successions; for logic is outside time. Hence there would be no varying at all; for a varying without time is a contradiction in terms. There would only be a logical process intrinsic to the One, or rather (because a process implies time) there would be nothing real but a motionless system of logical relations; happening would be reduced to an illusion.

Another contradiction in terms: this illusion comes about in any case, whereas it ought not to come about according to the premises, and on the supposition that all can be reduced to a contemporaneous system of logical relations, an illusory happening is no less contradictory than a real one.

But spontaneity gives rise to a happening which is

not the consequence of another happening, and hence to effects which certainly would not be realised if the elements which interfere were not included in a system of logical relations, but which cannot be reduced to simple logical consequences. Therefore, not only can these happen in time, but they cannot happen except in time. The elements A and B interfere because bound together by necessary logical relations, but the one is A and the other B, by itself, and not in virtue of logical relations. Each tends to develop itself and overcome the obstacle which the other opposes to it by means of those relations. Thus each becomes more or less different from what it was. Here is a process which undoubtedly requires time.

From this a notable consequence follows: the determination of facts cannot be absolutely rigorous. There is in facts an element of determinism, logical relations without which no causal connection would be possible. But there is also in facts a non-logical, indeterministic element—a spontaneity without which there would be no happening. Facts are connected according to certain laws, it is true, since they are connected in virtue of those laws; but the laws which render possible the interference of spontaneities do not suppress the spontaneities. They determine, so to speak, a circle within which a point must fall, leaving it to the spontaneities to fix the exact spot.

The spontaneity of the centres of variation, being a condition of happening, of existence in time, and of causal connection, coincides with the reality of the centres themselves or of the formations—in other words, of concrete objects. This result confirms that already obtained, *i.e.* that spontaneity is the condition or fundamental constituent of the reality of subjects. And indeed a subject does not differ essentially from a centre of variation.

To many the non-logical nature of the centres of variation will seem paradoxical. A knowledge which presumes to deal with something non-logical is self-condemned, there being necessarily presupposed a logic, which it cannot neglect without changing its nature and failing in its purpose.

We answer in the first place that centres of variation are not at all illogical, since they are connected with one another in a strictly logical system of relations. The intrinsic spontaneity of each is only outside logic, not contrary to it. Moreover, it always expresses itself in a field dominated by logic, whereas, if we refuse to admit it, we fall inevitably into the absurdity (illogical, not merely non-logical) of denying happening.

We answer secondly that spontaneity, though non-logical, is by no means opposed or extraneous to what is presupposed by knowledge.

Knowledge is, in fact, a product of the spontaneity of the subject who knows, a spontaneity which, to produce knowledge, must certainly express itself agreeably to the laws of logic, but which, in order to express itself so, must first of all exist. And it must be spontaneity. Whatever formation of a subject was not spontaneous would be fatally determinate, and, whatever it was, would always have the same intrinsic value—*nil;* it would not be knowledge. Spontaneity is therefore the very root of knowledge, and is an essential condition of it. Hence a knowledge which deals with spontaneity does not contradict its own presuppositions; rather it remains faithful to them, and confirms them.

CHAPTER VII

BEING

I

THERE is the same "something" implicit in everything as an essential constituent of it. The whole of it is in everything, for it is absolutely simple, not divisible in any way or under any aspect. Conversely, everything is implicit in it. The "something," being a rigorous unity, involves a multiplicity.

Common Being, including everything and included in everything.

A word which I speak is perceived at the same time by a hundred persons. The word is one, and is at the same time a hundred words in the ears, in the distinct consciousness, of the hundred hearers. Suppress that one word and you will have suppressed the hundred. The existence of the latter is only the existence of the former. Conversely, that one word would not be what it is, would not exist, if it were not perceivable by those hundred persons, by any number of persons who happen to be in certain conditions. The multiplicity supposes the unity, and the unity seems to suppose the multiplicity.

The simile[1] is in truth powerfully suggestive. But is the doctrine true which is summarised or indicated by it, and which is in substance far from new? Many will regard it as not even intelligible. The concept which we have reached is not one of those which common thought recognises in itself clearly and explicitly.

[1] Giordano Bruno's.

The knowledge of the average educated man who has not studied philosophy is fragmentary. But with all that, it is knowledge. It permits him to raise himself above the brute, to construct in time a civilisation and also a philosophy. But it does not constitute a coherent whole with no essential lacunæ, because it does not contain explicitly the principle of unity which makes it one connected whole, a principle which is also the reason of its possibility.

Philosophy in discovering this principle necessarily goes beyond fragmentary knowledge. It puts in evidence a knowledge different altogether from the knowledge of the man who thinks in the ordinary way. Therefore it cannot but make on such a man an impression of strangeness and paradox. We must learn to adapt ourselves to the apparent paradox. It is unreasonable to expect that the simple reading of a book—a reading perhaps hasty and inattentive—should change our mental habits. One who has no practice in book-keeping may fail to understand a ledger, but this proves nothing against book-keeping. Subjective failure to understand due to lack of familiarity—which can be overcome by study and in no other way—must not be confounded with incurable intrinsic objective obscurity, with lack of meaning. It does not constitute a serious objection. We have a right to claim of Philosophy, not that it should say easy and obvious things, but that it should prove what it does say. To say "Explain yourself; I do not understand you," is to give a more than sufficient answer to one who contents himself with making assertions. But when faced with rigorous demonstrations, we must either refute or accept them.

We have been led to the unity which is at the same time multiplicity, which includes the many and is at the

same time included by each of the many, by a process free from implications and presuppositions—a process which can be reduced to rendering all implications explicit and eliminating all presuppositions which are unjustified or absurd, to rendering the fact of knowledge intelligible by recognising the necessity implicit in it.

On the other hand, the result we have obtained is by no means at variance with ordinary thinking, or rather it is a perfectly simple and well-known element of it; albeit an element which, outside philosophic reflection, appears dispersed in the individual cognitions. The fact of its being so dispersed is an obstacle to its being apprehended and its character and value becoming recognised. In fact, we say of everything in particular that it "is." Is this, or is it not, a recognition that Being includes all things, and everything includes Being?

II

But an objection presents itself.

Whether the concept of Being is a formation.

"The Being of which we speak at any time, in whatever connection, is *simply* a concept. We place all things in the class of Beings. Therefore, when we say Being we do nothing more than express the means we make use of to arrange concrete objects. To every element of fact which we apprehend we suddenly apply the mark of Being. This has no meaning of its own, and only represents our way of apprehending what is given, the first step in that vast and varied process of classification of which our knowledge consists. We are so constituted that our thinking and knowing can be reduced to our making and applying a complex of marks of which the first and most generic is that of Being. Being, therefore, is only a function of the knowing subject."

The doctrine is true, provided that we do not misinterpret it. The knowing subject is certainly a particular subject, a person. We ask, "Is the Being which is constructed, thought by him, something exclusively peculiar to the person who constructs it, who thinks it?" In other words, "Are the Being thought by the subject A and the Being thought by the subject B *two* things, distinct though the same?" As, for instance, these two balls, though so similar that they can only be distinguished by their different positions, are *two*, as distinct as Titius from Sempronius.

To answer "Yes" is equivalent to accepting solipsism, for the same reason by which we deduce solipsism from the hypothesis that the content of sensation, the sense-percept, is exclusively peculiar to that subject in whose consciousness it is included.

A subject in perceiving by the senses either includes in its consciousness a sense-perceivable of which every other subject can become, and in many cases is, conscious, or it only apprehends a fact exclusively its own. In the first case, the sense-perceivable perceived being common, the subjects, as sentient, live in the same reality of which their bodies form a part, and each subject apprehends the existence of other subjects. In the second, each subject is enclosed in itself without possible escape, and the fact that each represents others to itself only proves the existence in it of certain representations analogous to those which it has of its own body—this, and nothing else.

Similarly, a subject, in asserting existence, either acquires explicit consciousness of a characteristic common to things (including among them subjects), a characteristic which can become explicit in the consciousness of any other subject—or only applies to the *given* fact a characteristic of his own exclusive construction. Sub-

jects, as knowing, in the first case know one and the same reality, of which they themselves form a part; in the second case, they are enclosed each in itself without possible escape. My assertion or knowledge that other subjects exist has this meaning only, that there exist in me representations analogous to those which I have of myself. To affirm with reason that besides the "existence" constructed by me there is another like it constructed by another subject, I must be conscious *also* of this other existence. Now this cannot be, if the existence of which a subject is conscious is a mark of its own exclusive construction.

To know that another subject exists, I must have the means of passing beyond myself—beyond my own exclusive individuality. This means must be *mine*, that is, must be included in the unity of my individual consciousness. For anything which does not belong to me, which is not mine in the aforesaid sense, is for me as if it did not exist—at least until I have the means of arriving at it, and therefore it cannot constitute the means of which we are speaking. But it must not be exclusively mine. For something exclusively mine would not allow me to go beyond myself. If I wish to move from the place where I am, I must find a point of support outside myself.

The means is, as is well known, constituted by the concept of Being. In fact, I know that the other subject is not illusory in so far as I know that the other subject exists. Therefore the concept of Being, mine in so far as included in the unity of my consciousness, is not exclusively mine. It is, if we like, a product of activity, which expresses itself according to certain laws, a product of the subject, but a product numerically one for all knowing subjects without exception.

III

Certainly Being is not something which I apprehend like a *given* fact. It is what I say or think explicitly or implicitly of everything, a thought of mine—a form, that is, of my activity as thinker or knower. But that of which I render myself conscious by the exercise of my activity as thinker and knower—by the very explicit consciousness which I have of it—is revealed to me as something which cannot be exclusively enclosed in the field of my individual consciousness. It would not be what it is in my consciousness if it were not the same and numerically one also outside it and everywhere.

Identity of Being as thought and as real.

Being is one of my concepts, *i.e.* it is the meaning, the value, which the word "Being" has for me when I use it significantly. But it is at the same time a characteristic common to every subject and to everything that is or can be included in the consciousness of any subject whatever.[1]

To say that a thinker has the concept of Being means nothing else than that that thinker has explicit in his personal consciousness the element or characteristic common to everything. And the element common to everything cannot be other than what the same element is in the consciousness of any thinker whatsoever. We should not think existence if what we are conscious of when we do so were not existence.

Being, therefore, is the *thought*,[2] but not the act

[1] It should be noticed that when we say that Being is (1) a concept common to every thinker, and (2) a characteristic or element common to everything (and to every subject), we are saying the same thing in different words.

[2] Il pensato.

of thinking. This act also certainly exists, but it is not Being simply—it does not exhaust it. There is the act with which Titius thinks Being, and the act with which Caius thinks it, real and similar (because they have something in common), but distinct. Facts happen whereby Being comes to be included in the personal consciousnesses of Titius and Caius, and which, by happening, make those personal consciousnesses to *be*. But Being cannot be reduced to those facts, nor is it constituted by them. Otherwise, Being for Titius would be quite distinct from Being for Caius. It could not be one and the same thing for Titius and for Caius. Being is not the act of thinking, but the *thought*[1]—the *thought*,[1] but not as thought in this or that act, not as included in this or that personal consciousness—that which can be thought both by Titius and by Caius, which does not depend, therefore, at all on the fact that Titius or Caius thinks it (or that he exists)—the *thinkable*.

Naturally the *thought* and the *thinkable* are all one. Who would say that the *thought* is not thinkable, that thinking is not thinking the thinkable? I spend a coin. The coin which I spent was spendable. To suppose that the coin spent and the spendable one are not the same coin is nonsense. For all that, the coin is spendable even if I do not spend it, even if I do not possess it and do not exist.

The two doctrines, that Being is a characteristic or element common to things, that it is a subjective form of cognition—so different in appearance—interpreted as they should be in order to be intelligible, in order not to render absurd the cognition for which they are meant to account, are rigorously identical.

In fact (if what has already been said is not enough)

[1] Il pensato.

the activity, which produces the form or which becomes explicit according to the form and in this way knows, belongs to the personal subject or is included in the personal consciousness, or else the personal subject would not know and would not exist. But there cannot be a distinct one for each personal subject, for in such a case no personal subject could know or suspect or suppose the existence of any other personal subject, which is contrary to the truth. The activity of which we are speaking is therefore one and the same for all personal subjects and is wholly possessed by each.

Moreover, the same activity is a constituent, not only of each knowing subject, but of each knowable concrete object. A concrete object is knowable by me just in as far as it exists for me. The existence and knowability of the concrete object can be reduced to this, that that form of my cognitive activity is a characteristic of the concrete object, that the concrete object is a determination of that form, a product of the same activity.

To suppose that concrete objects are not products of this activity *alone*, that this activity to produce them must interfere with another, with *something else* which provokes it, is nonsense. This other activity, or this something else, must *exist* in order to interfere or provoke. Therefore it must be originally a determination of that form, a product of that activity.

In conclusion, each subject, and each thing that a subject apprehends or can ever apprehend, has its root in the activity of which we speak. This is therefore the real element, numerically common to everything of which the universe is composed. Unless we wish to suppose a universe declared non-existent in the same sentence in which it is supposed, we must say that the subject, in thinking Being, thinks the (thinkable) element common to everything, the fundamental element of the

universe, and the subjective doctrine is reduced to the objective one.

Conversely the latter can be reduced to the former. If I think, if I know the real or Being, or that which all things have in common, it must needs be that the real, or Being, or that which all things have in common, coincides absolutely and entirely with what I think and know; that in so far as it is thought or known by a personal subject, in so far as it is a thought and a knowledge of *mine*, it certainly cannot fail to be an element of my self,[1] an expression of an activity which is mine, though not mine only: that it is an essential constituent of myself[1] as well as of all that which can be called existent, precisely because constituted by it.

IV

But what does anyone mean who says Being, and nothing but Being?

An activity, we have already replied. In fact, without Being there would be nothing. Everything exists in so far as it exists; in other words, in so far as it has the characteristic of Being, in so far as that characteristic of it which is Being exists. Everything exists through Being, has its existence from Being, or is a product of Being.

Indefinability of Being: its true signification.

But we must not delude ourselves with the idea that we have made the concept of Being any more precise. That activity which is Being is still nothing else but just Being.

Activity as contrasted with passivity and receptivity has doubtless a determinate sense; these three concepts as correlatives determine one another. I see a light burn-

[1] Persona.

ing, and its brightness annoys me. To the illuminating activity of the light there corresponds a passivity in my nervous system which remains impressed. A receptivity and again a passivity correspond in my consciousness. A sense-perceivable is included in it as a sense-precept, and an unpleasant feeling is created. I put the light out; I develop an activity to which there is a corresponding passivity in the light which ceases to burn. To conceive activity, passivity, and receptivity signifies to make distinctions of the nature of the aforesaid.

But that activity which is Being is not conceivable by means of any analogous distinction. The activity of Being is no less included in those which I have called passivity and receptivity than in that which I have called *in particular* activity in the example referred to. Passivity and receptivity *exist*, just as much as the particular activity which I distinguish from them.

To say that Being is activity is not out of place. It serves to make clear an essential point—viz. that Being cannot be reduced to the inert matter of the physicists; nor is it only a "thought in my head," nor yet a label made by me to attach to things. But it is a characteristic of things, a characteristic without which there would be no other. The term activity is suggestive; it hinders the reflection from losing itself; it helps to put it on the right path. But intrinsically, if Being is taken in its true sense, and if by activity we understand the activity of Being, and not a particular determination of Being, activity and Being have the same meaning. And after having identified it with activity we know no more of Being than before.

What do we know of it? The fact is, we can say nothing, and there is nothing of which we have consciousness of which we can say only that it exists. Therefore to be means the same as nothing. And Being

coincides with nothing (that Being, I mean, which is nothing but Being).

Let us consider. Of red, blue, &c., we can say that they are colours. Also of colour we can say something (*e.g.* that it is a content of sensation). But what we can say of it will be a characteristic common to colour and something else; it will not serve to distinguish colour from this something else. Then if we make abstraction from this something else, do we know nothing of colour? We know something evidently, for if we cannot predicate anything of colour, we can predicate colour of red, blue, &c.

Being is predicated of everything, and in consequence we can predicate nothing of it: the extension of this concept being infinite, its intension is zero. It is impossible to define it, but this is precisely because there is no need to do so. One who has the concept of this, that, or the other Being—of this, that, or the other class of Beings, has therein implicit the consciousness of what is common to all the different Beings—has implicit the concept of Being. And to render it explicit to himself he must only know how to complete the operation (already described) whereby we succeed in *distinguishing* the common from among the non-common elements with which it is always associated. In an analogous way one who has the concept of red, blue, &c., has implicit the concept of colour, which he will render explicit if he succeeds in distinguishing from the peculiar that which these concepts have in common.

We must not confound the concept with the expression of it. The concept of Being can only be expressed by means of a single word. And a single word necessarily lacks that internal organisation, that richness and variety of articulations, those clear references, which are properties of every sentence and hence also of

definitions. Therefore a single word seems less significant than a definition. The working of a tool which is in one piece cannot, like that of a machine, be reduced to the ordered inter-working of its several parts. But we cannot conclude from this that the working of a tool is less intelligible than that of a machine. Every part of a machine is something like a tool, nor could we understand how a machine works if we did not understand how a tool works. Well, a single word can be compared to a tool, a definition to a machine. The use of the latter presupposes the use of the former. The complicated presupposes the simple. Naturally we cannot claim from the simple what belongs to the complicated. The attention is generally fixed in preference on the complicated, which we understand by taking it to pieces. Dominated by this habit, we think the simple unintelligible because it cannot be taken to pieces. But that is an impression from which we must free ourselves. If the simple were not intelligible, no more would the complicated be so. It is true that a word may fail to be understood, by one who lacks the corresponding concept. But there is no one who lacks the concept of Being. Therefore the corresponding word, though single, expresses it with clearness. No one could desire greater clearness except one who desired finer gold than that of twenty-four carats.

It remains to consider the objective side of the question.

V

Being, and nothing but Being, means the absolutely indeterminate. And the indeterminate has no existence apart from its determinations; it is inseparable from them. Plough, and nothing but plough, has no existence except as a characteristic common to all

determinate ploughs. Suppose for a moment there were no determinations of Being; there would be no Being either. But Being is necessary. Necessity, in all its forms recognised by us, has for sole foundation the essential correlativity of things, their unity or Being. Besides, the thinkable, as such, cannot be non-existent.

Indeterminateness of Being: problem arising therefrom.

Since Being is necessary, and determinations are essential to it, determinations of Being will also be logically necessary. What sort of determinations? Concrete objects exist, *i.e.* are determinations of being; subjects with the psychical phenomena which constitute them bound together in the single unities of consciousness and unconsciousness; external facts, also psychical, *i.e.* capable of inclusion, though not all necessarily included, in the same unities;—everything in fact is a variable determination of Being. The one is immanent in the many, Being in the Beings.

But are the concrete objects which constitute the observable[1] reality the only determinations of being?

Concepts and the relations logically necessary between concepts and concrete objects express the intrinsic requirement of Being, of which all concrete objects and subjects are determinations. There is a logic implicit in things in so far as all things have their root in Being. The same logic becomes explicit in our subjective thinking in so far as subjective thinking is a method whereby each of us renders himself conscious of the Being which is immanent in him. From the fact that thinkables necessarily exist we infer that concrete objects and subjects (also concrete) have no separate existence, but are determinations of one and the same

[1] Reality is never wholly observable by any limited subject, but we observe one part of it, and could observe any other part whatever, if we were differently situated in space and time, or even differently organised.

Being, which has an intrinsic requirement of its own, and hence cannot fail to have certain essential determinations.

But we neither infer that Being has essential determinations of another kind, nor that it has these only, nor that these are essential (supposing them not to be the only ones). So far we do not know of any others, and evidently must not suppose them. We must investigate whether Being admits or requires any others. Every attempt to solve the Great Problems is reduced in the end to this investigation.

The investigation can doubtless only be effected by rational means. To make it we have only to proceed along the path already trodden. The unity of concrete objects is not yet clearly apprehended by the average man. We have concluded it without a doubt. From what? From the absurd results we obtain if we assume that concrete objects are, as they appear at first sight, not essentially connected. But the concept of unity which we have formed so far is not such that we can stop at it. It is still too indeterminate. We shall determine it with the continued and renewed application of the same process. There can be no other, and this cannot fail to be conclusive. To seek with a rational procedure which ends (and every rational procedure ends) is to find. If the thing sought proved undiscoverable, it would be proved non-existent, and this also would be a finding.

Nevertheless the investigation is perhaps not yet ripe. Perhaps it requires, I will not say a greater number of positive cognitions, but a more exact, a clearer, a less prejudiced consciousness of the content, of the implications, and of the value of every cognition, especially of the cognitions of values. We must not presume to exhaust it in a few words; we shall have done enough if we succeed in starting it in the true direction.

VI

Determinations are essential to Being. Admitting that its only determinations are concrete objects—which at this point is not a supposition but an abstaining from supposition—we conclude that concrete objects are as essential to Being as Being to the concrete objects. As determinations of Being, concrete objects constitute a true unity, not a simple aggregate. Conversely, Being necessarily implies concrete objects, and can be reduced to the system of concrete objects one and manifold at the same time. Being is realised, and cannot fail to be realised, in the universe.

Being and happening: centres of spontaneity presupposed by happening.

But the universe is variable. Since Being necessarily has determinations, and has only those by the entirety of which the variable universe is constituted, we must say that the variation of the universe has its root in an intrinsic requirement of Being.

Yet we must not believe that variation is in every particular connected logically, and only logically, so as to be (in theory) rigorously capable of being foreseen. The transformations of a formula are rigorously capable of being foreseen. But these constitute a variation for the subject which goes on discovering them gradually, which comes to know them by its own successive acts. Intrinsically they do not constitute a variation. The different forms which the formula can assume, the relations which bind them together, were and always will be thinkable, apart from the process by which a subject succeeds in thinking them, in including them in its own personal consciousness. In themselves, as thinkables, they do not admit of variations of any sort.

Real happening, as taking place in time, cannot be reduced to a system of logical relations only, for these are outside time. It would not exist if being were a pure and absolute unity—that is to say, purely and absolutely logical. Real happening presupposes multiplicity (we saw that before), centres of spontaneity, bound together by logical relations, included in the unity of Being, but none the less endowed with a certain independence—such, that is, that the varying of each centre is not only the necessary logical consequence of a varying already in process.

Real happening, in so far as it implies centres of spontaneity relatively independent, escapes all rigorous prevision. Under one aspect it is accidental or alogical, but its accidental or alogical features[1] are not absolute.

In fact, if there were no centres with their spontaneity or capacity for accidental variation, there would be no concrete objects, and happening would not take place. Nothing would remain but the bare system of logically connected thinkables. Nothing, that is, would remain but indeterminate Being (which logically implies every thinkable.) Which is absurd, for indeterminate Being only exists as the element common to its determinations—it requires determinations. Accidentalness, however alogical in itself, is therefore, as we indicated, itself the result of an intrinsic logical requirement of Being.

Furthermore, the centres, though distinct or relatively independent, are yet included in the unity of Being, of which they are determinations. Each is the beginning of a variation which is not referable to another, which is an absolute beginning. But (precisely because every centre is included in the unity of Being) the

[1] L'accidentalità o l'a-logicità.

spontaneous variation of one interferes with that of another in a manner and with a result that depend partly, it is true, on the two variations under consideration, but partly also on a logical law based on the unity of Being.

The alogical, the accidental, cannot, then, be separated from the logical, the necessary. Happening implies at the same time elements that can be foreseen and others which cannot, not only inseparable but essential to each other. If we wish to form a conception of the universe, generic but exact in what it can have that is positive, we have only to render a little more precise the relation that exists between the elements of the two species.

VII

Centres of spontaneity exist. They exist because Being, through the necessity which is intrinsic in it, requires determinations. The spontaneity of the centres is, then, to be referred to Being—naturally, for there is nothing outside Being. The spontaneity of the centres is, then, a spontaneity of Being—or activity, to use a term of which we have already made use. To assert the spontaneity of Being is only in the end another manner of expressing what we have already deduced, *i.e.* that the necessity of Being implies an accidentalness which remains subordinate to logical necessity, while the necessity is realised by means of a logical accidentalness.

The centres of spontaneity. Their indeterminism, their reduction to unity of consciousness.

None the less there is a difference between the spontaneity of a centre and that of Being considered in its indivisible unity. Each centre implies Being, all Being, in which also it is implied. In fact, it cannot be stable without Being, or, rather, it cannot help varying

if even one other centre varies. But a centre is certainly a something distinct from every other, and *a fortiori* from all Being of which it is *one* particular determination. Hence the spontaneity of a centre cannot *sic et simpliciter* be identified with the spontaneity of Being. Being creates spontaneous centres: the spontaneity of a centre is created by the spontaneity of Being. This is the true expression. We understand that the centres are created by Being, inside itself and not outside, for they are determinations of it. Outside Being there is nothing.

A centre is spontaneous in this sense, that it is distinct and relatively independent: its varying cannot be referred entirely to another varying. This other varying takes place because the centres are numerous and their variations are causally connected with one another. Therefore the assertion that the varying of a centre cannot be referred entirely to another varying has a precise meaning. The varying of the universe can be referred to the spontaneous variations of the centres and their causal connections, or it can be referred to the varying of the universe. It depends on nothing else, because there is nothing else. We can and must say also of the universe considered in its unity that it varies spontaneously. But this spontaneity, if we make abstraction from that of the individual centres, does not exclude necessity. It excludes determination *ab extra* because there is no *extra*, but not for any intrinsic reason. That sort of spontaneity that we must recognise in the universe as one includes rather intrinsic necessity. To suppose a principle of variation apart from the spontaneous centres—variations already in course of development—and the laws which connect them with each other is to suppose determinations of Being other than those from which the universe results.

It is true that the spontaneities of the individual centres are determinations of Being, spontaneous in so far as referable to Being only, but created by Being by an intrinsic necessity. Being, in order to have those essential determinations which are the variable concrete objects, cannot help determining in itself distinct centres of variation as spontaneous as they are distinct. Just as, to take a rough illustration, if a planet has to fall for ever towards the sun, it must fall away from it as much as it falls towards it, and remain always practically at the same distance from it. That same intrinsic necessity whereby Being is actuated in the varying of the universe brings as a consequence the formation of centres which vary partly outside every necessity (though, of course, never contrary to it).

Moreover, a varying which is not wholly determined by logical relations or causal connections would have no *raison d'être* unless it had it in its own intrinsic value. Doing presupposes feeling, however weak, in which the centre of the action lives the value of the action. And feeling presupposes unity of consciousness, however poor of content. The centres of spontaneity must be centres of unity of consciousness, elementary, but comparable to subjects. Universal Being, of which every concrete object is a determination, in order to be spontaneous like a subject (in order that its variation may be independent, not only of every external causality, but also of intrinsic necessity) must be a subject. But supposing it such, we attribute to it a determination other than those from which the universe results.

The present section contains little that is new. But it again confirms and clears up results already obtained. Although not strictly necessary, it will be useful to the exact interpretation of the doctrine.

VIII

Therefore necessity (unity) and spontaneity (multiplicity) are the elements of the universe.

Spontaneity is a product of necessity, a product evidently necessary. Necessary Being, one, in order to determine or realise itself—that is, in short, *to be*—creates in itself the spontaneous many, into the unity of which it may be resolved and in which it consists.

Monads and subjects. Development of the monad.

Though produced by necessity, spontaneity does not cease to be true spontaneity. Or that would not take place which must necessarily take place. It is necessary that facts should happen—that is, non-necessary facts. There must be a happening, and in consequence there must be absolute beginnings. Necessity does not determine the beginnings. What is necessarily determined cannot be a true beginning. The product of necessity is, as such, out of time, eternal. It determines that there must be beginnings, it determines the centres of spontaneity which operate indeterminately, each for itself—the many, the monads.

The monads, as determinations of the one Being, are included in it. And they include it because each of them exists. But they can be distinguished from it and from one another: precisely because each is *one* determination of Being; or because each is spontaneous. In fact, Being is determined in so far as it necessarily produces in itself centres of spontaneity.

Every act of spontaneity of a monad is a fact of consciousness, and the monad, initially, is only the unity of its acts, a law, something similar to the one consciousness of a subject but with an infinitely poorer content—poor in relation to the multiplicity of distinct

facts, and hence without complication and what is due to complication. But we can say, on the other hand, that a monad's unity of consciousness includes Being, includes potentially the infinite variety of content implicit in Being, inasmuch as every act of spontaneity is a determination of Being, and the constituent law of the monad has its root in the unity of Being.

As the monads are distinct from one another and from Being, and as they are all included in the unity of Being, their acts of spontaneity interfere with one another. Hence it follows that each monad varies also otherwise than spontaneously. The spontaneous facts are connected in a causally determined happening. From the causal connections—under which there lie the spontaneities of the individual monads and the unity of them all, the unity of Being—there arises the infinite variety of formations which the universe presents.

Bodies are groups of monads, bound together or constituted by laws other than the unity of consciousness, in substance by causal laws. If there is need to repeat it (for the thousandth time), these laws have their root in the unity of Being, and can be reduced to it. The science of Nature has discovered some, more or less general, and is always discovering more. Whether among those hitherto discovered, there are any rigorously exact ones (I am speaking of truly causal laws in abstraction from geometrical laws), whether there are any universal or permanent laws, is a question which we may leave undiscussed. In virtue of causal laws, known to us or unknown, valid universally in time and space or variable according to circumstances, the corporeal universe varies incessantly.

A subject is a monad, connected with others in a body conveniently constituted and situated, so as to permit the unifying in its consciousness of a great

number of external facts (of sense-perceivables), and in consequence the rise of other internal facts (recollections, representations, feelings, whence afterwards the spontaneity of the monad receives certain specific characteristics).

For a monad to be able to raise itself to a subject, its connection with a body conveniently constituted and situated is required. That is, the formation of such a body is required. The formation of the body and the assumption in it of a central situation by one of the constituent monads are correlative facts which can be reduced to one. A finer bodily organisation—in particular an aptitude for producing articulate sounds—and a certain environment are required in order that the subject may raise itself to rationality and become a person, and that the person may fully develop the activities of which he is capable.

Between the rational subject, the purely animal or psychical subject, and the common monad, whose power of making itself of value can be reduced to its being an element of those systems which are bodies, and whose consciousness is, in degree, comparable rather to our unconsciousness as it is infinitely poorer in contents than ours, we ought not apparently to recognise primary essential differences. Certainly the soul is not a product of physical happening. Physical happening is rather constituted entirely of facts which can be included in the unity of a consciousness, or of psychical facts, as the determinations of Being can be reduced to psychical facts. Certainly rationality is not a product of psychical happening, of which it is rather a condition. Rationality is the unity of Being, underlying all its determinations.

Personal consciousness in the greatest exuberance of its own development is already implicit in that of the

most elementary monad. A monad which becomes rational does not make its rationality *ex novo*, it only intensifies its own activity, so rendering itself conscious of the laws by which it expresses itself, laws not only already existent but already immanent in it. Evidently an activity which intensifies itself expresses itself in facts which would not have happened without its intensification. For instance, a man experiences pains and pleasures of which a baby or a boy neither has nor can have experience. The intensification of the activity presupposes the activity. But the activity presupposed will or will not intensify itself, will or will not have a development, according as it is more or less provoked, in one way or another, by its interference with connected but distinct activities.

The monads, or let us say the centres of spontaneity or of unity of consciousness, do not produce themselves, and hence do not dissolve themselves; they are immediate consequences of the necessity through which Being determines itself. We see no reason to suppose that the monads can form or dissolve themselves; the supposition seems to have no possible meaning. On the other hand, that the person and the subject, with their conscious determinations, commence is as certain as that happening takes place. We must conclude, therefore, that a monad is or is not transformed, does or does not develop, into a person or a subject according as happening does or does not put it in favourable circumstances.

We do not exclude there being primary differences between the monads. Or, rather, it would not be difficult to prove that there are such necessarily—that one monad cannot be an exact reproduction of another. Are the monads, then, to be divided into classes without the possibility of passing from one to another, so that certain monads can never be anything but elements of

what is called matter, and that only some are capable of rising to be subjects, and only some of these capable of becoming persons?

It would not be easy to answer these questions, nor shall we attempt it. One thing remains beyond discussion. If the subject and the person presuppose exceptionally endowed monads, they also presuppose favourable circumstances, due to happening, without which, the most exceptional original gifts would remain latent, potentialities absolutely inefficacious. If Galileo had died in his cradle, he would not have written the "Saggiatore."

IX

Variations and circumstances of fact.

The two principles of unity (or necessity) and spontaneity are not sufficient to give us the reason for the observable variation. We must take circumstances of fact into consideration also. Or, rather, if (at first) we limit ourselves to physical happening, we shall only have to take explicit account of laws and circumstances of fact.

Certainly, if spontaneous facts did not happen there would be no happening at all, not even physical happening. But through the way in which spontaneous facts affect each other so as to compose the observable physical facts, the indeterminate coefficients, expressions of the individual spontaneities, eliminate each other. We do not inquire whether they do so absolutely or only approximately. (Our observations are only approximate.) In physics, spontaneity only makes its value felt in so far as it is presupposed by the observable facts and their causal connections, never explicitly. So also rigorous unity does not make its value felt explicitly, but only as presupposed by the mathematical laws and,

jointly with spontaneity, by the causal laws—physical in the strict sense. Laws and facts given,—physics has need of nothing else.

That the facts given are elements very different from the laws is an observation which may appear superfluous. It is without doubt intuitive, but this does not mean that it is of little importance. Our solar system varies in a certain way, evidently in virtue of the laws of gravitation; but further, because it is composed of certain bodies, which at a given instant are situated at certain distances from one another, &c. If these elements of fact were different, or were to change independently of the intrinsic variation of the system—if, for instance, some external bodies came considerably nearer—the system, in virtue of the same laws, would vary in another way. Or let us consider an infinitely simpler case of common experience: a ball of wood, in virtue of the laws of gravity, sinks in air and rises in water. Therefore the universe varies in a certain way, not only because certain laws are valid, but also because it has at a given instant a certain configuration—because the centres of spontaneity are distributed in it and grouped together in such or such a way. And its configuration at a given instant is due, not only to the laws, but to what its configuration was at a previous instant.

It is not impossible, perhaps not even improbable, that the laws which are not logically necessary (many causal laws, if not all) depend themselves, up to a certain point, on circumstances. Also, without insisting on this point, it seems clear that to give an account to ourselves of what the universe is now, or of the way in which it will vary in the future, we must go back to what the universe was at a past time. If we go back so, it will or will not be possible to reach an initial configuration, the beginning of the universe.

On the first hypothesis, the existence of the universe could not be a consequence of the necessity through which Being must determine itself. The essential determinations of Being would be of another kind than concrete objects. If we do not wish to abandon the order of considerations to which we have attained, we must choose the second hypothesis. Then the universe, not having had an initial configuration, will not have a final configuration either. We shall never arrive, we do not say at the cessation of happening, but not even at a condition of equilibrium in motion, which we might compare with that at which our solar system, approximately and not for ever, has arrived.

In fact, a variation which lasts for ever cannot tend towards a definite goal, be it rest or equilibrium in motion. It cannot be tending towards it, because, if the goal were realisable, it would have been realised ages ago. That goal, if not already realised, must be intrinsically unrealisable. Its unrealisability, we mean, cannot be like that of so many of our ends, which, though quite thinkable, fail through the fault of external circumstances (there are no circumstances external to the universe); it must be reducible to unthinkableness, to absurdity. That same necessity which makes the universe *be*, excludes the possibility of the universe, as wholly one, tending towards an end. (Of particular ends we will say more hereafter.)

The universe exists necessarily, and abstraction made from the influence of the spontaneous centres, which is negligible in physics, varies necessarily. Now the necessity is always the same. Therefore, the variations of the universe must be such as to leave it, as a whole, always approximately in the same state. This does not mean that the variations are only apparent. Here one system is in evolution, there another is in dissolution.

The evolution of the one system, the dissolution of the other, are facts as real as the distinction between the one system and the other. But in reference to the whole, what is gained on the one hand is compensated by what is lost on the other. Or, rather, it is not a case, in reference to the whole, of gain or loss, but of an indifferent variation. As if, for instance, I move one franc from my right pocket to my left, and at the same time another franc from my left pocket to my right. The parts vary, and even profoundly, each by itself. The whole remains always the same in spite of the variation of the parts.

X

The monad as primary purposeful element.

That there is purposefulness in the universe is no less evident than the universe itself. It remains that we should form an adequate concept of how this finality exists, and of the limits (if any) between which it makes its value felt.

Being necessarily determines in itself monads, or centres of spontaneous happening.

The spontaneous acts of the monads are facts of consciousness; that is, they are something analogous to that of which each of us is conscious. Not that what we are conscious of can be reduced to spontaneous acts, for besides spontaneous happening there is causally determined happening; but there is no reason for supposing facts which are not facts of consciousness. The unity of a monad—the unity of those spontaneous facts which have one and the same centre—is, then, unity of consciousness. In other terms, the monad is something analogous to a subject; it is a very simple elementary subject.

That unity of consciousness which is the monad,

however elementary and poor of content we must consider it, cannot be without its essential constituent characteristics; it must be theoretical and practical. Theoretical—that is, representational; we understand that the representations of a monad will not be in general clear or distinct. Practical—that is to say, activity and feeling. To attribute activity to the monads is only another way of asserting their existence, since the monads are centres of spontaneous happening. And activity in order to be spontaneous, must be self-determined, and must express itself for the value of its very expression; that is, it must be associated with a feeling, must include the feeling as one of its constituents. We understand that the feeling will not be in general varied or intense.

The activity of the monads being conscious, and having in its own value the reason of its expression—being in short spontaneity—is purposeful. The simple monad cannot propose to itself determinate ends, and in particular external ends, because it does not represent them to itself; it simply acts for acting's sake. But to act for acting's sake signifies an acting which has itself for its end. The monad varies spontaneously because and in so far as such a variation constitutes a satisfaction, as slight and as feebly apprehended as you will. We have, then, in the monad a first element of purposeful happening. However, the purposefulness of the monads is only intrinsic and only subconscious in comparison with the clearness with which we represent our ends to ourselves.

Besides determining the monads in itself, Being, always through its own intrinsic necessity, connects causally their spontaneous variations (thus giving rise to facts distinct from these variations). So are formed those groups—of monads, and of spontaneous or causally

determined variations, or of sense-perceivables—which are bodies.

Everybody is a system, bound together and constituted by causal nexuses, external and internal. The difference between organised and unorganised bodies must be referred to the differences between the said causal nexuses.

In the unorganised body, the constituent causal nexuses are approximately indifferent to the grouped monads. These are not excited by them, either to intensify their spontaneities or to express themselves in one way rather than another. Hence results the already noticed dissimulation of spontaneity. In purely physical happening, in so far as it is observable, there appears no certain sign of the elements of spontaneity which are included in it. Hence it results further that the unorganised body is rather an aggregate than a true unity. The suppression of one part does not determine essential variations in the other parts and in the internal and external happening. Hence results in the end the lack of purposefulness. In the inorganic heap, that happens which must happen, given the laws and circumstances; since spontaneity and value are lacking —dissimulated—these are not even ends to attain.

The characteristics of organisms are—an internal structure and a special chemical composition, recognisable by observation, and also doubtless an equally special molecular constitution. The vital processes are never lacking in bodies which present the characteristics indicated. They are always lacking in those which do not present them. So that the inseparability of the vital processes and the characteristics cannot be doubted. And the characteristics can be reduced to causal nexuses constituting the organisms, or, we might say, to certain intrinsic laws of theirs.

Let us see briefly in what way these causal nexuses or these laws can give rise to a purposeful happening.

XI

First of all, it is credible that the constituent causal nexuses in the organisms avail to excite the spontaneity of the monads, occasioning in them certain specific forms of expression, whereas in the other bodies they avail to dissimulate it, as we noted. In the higher animals, at least, that happens without doubt with respect to a central monad. In fact, a unity of consciousness—that is, a developed monad—is always associated with the body of the higher animal. That the physiological life and the conscious life are connected by mutual bonds—or that the development of the central monad is due to the functions of the organisms and in its turn influences these functions—is immediately evident.

Purpose and mechanism.

Considering that every complicated organism is composed of cells (modified, it is true, by their mutual relations), and that there are unicellular organisms, that the experiments of merotomy prove that a cell is composed of smaller parts, each of which, in favourable conditions, can reproduce a cell similar to that from which it has been detached—it seems probable or certain that the excitement of which we spoke is realised by all the monads composing the organism, or at least by very many, and not by the central one only, although the excitement is much less varied and much less intense for the other monads. There is no reason to suppose that more than one subject is associated with the body of the animal.[1]

The spontaneous acting of the monads is always

[1] The simpler animals perhaps, the plants certainly, are not subjects in a strict sense ; in their bodies there would be no central monad.

purposeful. So also will be the more energetic and more varied acting of the monads when excited as we have said. And such acting being provoked by external excitements, and constituted by interference with an external happening, its purposefulness (obscure and subconscious) will be directed in some way towards the external world. Circumstances being no longer indifferent as in the inorganic body, the monad tends to adapt itself to them and to adapt them to itself.

An organism is, then, a system of spontaneous centres, each of which works by interfering with the others according to an end which, in the complex, is determined for it by the interference with the others. Supposing the system to be in equilibrium—which supposes a certain constitution of the system, and a favourable environment—we understand without much difficulty how the purposeful operations of the individual centres can and must interfere, so that a purposeful variation of the system results from it, even if there is no central monad to exercise a directing function.

Secondly, a purely physical system (one, that is, in which the spontaneity of the monads is dissimulated) can also vary according to an end, but only in virtue of its physical structure. Our machines might serve as an illustration. An organism nourishes itself, reproduces itself, adapts itself (within certain limits) to the variations of the environment, and can (within certain limits) repair accidental disturbances of its intrinsic equilibrium. Above all, it prepares formations directed towards remote ends, certainly unapprehended and extraneous to what we should call the purpose of the organism as such, while the means to the attainment of these ends are applied with a sureness far superior to that of our conscious intelligent acting—things of which no machine is capable.

With all this, it has appeared to some (including the writer) that the organism can be reduced to a species of machine—infinitely more delicate than ours, for every assignable part of that machine which is the organism[1] would still be a machine, which is not true of our machines.

The more delicate and profound purposefulness of the organisms would be referable to their greater complication. Also the problem of origin (since every machine supposes an intelligent maker) would be eliminated without much difficulty, assuming that the reduction of organisms to a species of machine is reconcilable with the fact of reproduction. Certainly the first origin of the organisms is not assignable, not because we are not capable of assigning it, but because organisms, equally with happening, never had a beginning. Organisms exist because others preceded them, and these were preceded in their turn by others, and so on *ad infinitum*. It is true that the actual species of organisms have not existed *ab æterno*, but this difficulty also can be resolved by extending to evolution that same purely causal account which we gave of life.

XII

The *purely* causal doctrine is only a hypothesis. It leads us to admit or it presupposes that physical facts cannot be reduced to facts of consciousness. After what we have seen, there is no further need to confute it. As rationality cannot be explained by means of the irrational, so the evident purposefulness of life cannot be explained by means of causal necessity. It implies a purposeful factor.

Purposefulness and non-purposefulness. Their reciprocal complication.

[1] Including in the account both the chemical constitution and the molecular structure.

We have recognised an undoubtedly purposeful factor in the spontaneity of the monads. We can also suppose a second. We can suppose that in Being, as one, there are implicit laws, essentially final, in the same way that the necessary logical laws are implicit in it. Be this as it may, one thing is certain. The manifestations of life, and the higher and more complex most of all, though they certainly imply purposeful factors, yet imply, on the other hand, physical conditions also, determined by a happening which is under the bond of necessity, and to which in consequence finality remains extraneous. Though life is not the product of a mechanism, it is developed in the bosom of a mechanism, and depends on it.[1]

Non-purposeful causes are insufficient to explain life, but it is impossible to avoid taking account of them in a theory of life. The mechanism in which life is developed and on which it depends consists in the end of vital and psychical elements. A happening takes place because there are centres of spontaneity or of unity of consciousness. But the identity of the elements of which both the inorganic world and the organisms are constituted does not exclude the diversity of the formations and laws. The essential indestructible spontaneity of the centres and of the monads is reduced by certain formations (viz. physical formations) to a minimum without observable effects; by certain other formations, viz. organisms (particularly the higher ones), it is intensified and rendered capable of a large development.

That the formations of the second kind can, within certain limits, open a way for themselves, and through obstacles opposed by those of the first kind, is exemplified

[1] Mechanism, if there is any need to say it, means the physical world in so far as it is determined by necessity. We are not speaking of the doctrine which claims to reduce physical facts to motions only.

by us, who by way of cognition dominate nature. But there are insuperable limits. A tile on the head kills the most intelligent man. A relatively slight physical disturbance might annihilate at a blow the whole human race, and make every observable form of life disappear from the earth.

Might? The fact rather will certainly be realised—at some remote time according to every probability. In ordinary practice it is not a case of troubling about it. But the more elevated practice which is bound up with religious beliefs and philosophical speculations *must* trouble about it, for the fact will be realised, no matter whether sooner or later. That the solar system must be dissolved can be foreseen with that same certainty with which it can be foreseen that an animal will die.

The purely causal non-purposeful account, in spite of its insufficiency, would turn out true in the complex—in reference to the whole. As, for instance, physical determinism holds, we cannot even in physics make a forecast rigorously exact in every particular. Every single fact implies indeterminate coefficients. We need not inquire whether they are absolutely indeterminate in themselves, or if it is only our knowledge of them that is not determinate and precise. That notwithstanding, physical happening appears to us on the whole subject to inevitable necessary laws. In the same way, the single vital facts, the entire life of an organism, and the whole of its life during a very long period—its evolution on the earth,—all this implies an indisputable purposefulness. But if we consider the universe in the complex without enclosing ourselves within certain limits determined by space and time, we must recognise that the purposefulness is eliminated. As it cannot escape from causality, with which it shares the field, it must in the long run yield to it Its yielding is not its annihilation. Excluded from

one part of the physical world, purposefulness reappears in another and recommences its work there, not inefficacious, but always doomed to be interrupted. Ends make their value felt, but always subordinately to causes. The universe implies purposeful organisations, but as a whole it has no purposeful organisation, and does not tend to acquire one.

XIII

All this, however, supposes that the human race must cease to exist. But (some one will say) such a presupposition is inadmissible in spite of the arguments with which the physicists claim to prove it. The physical world only exists in consciousness and thought. It is absurd that from a transformation of it the annihilation of consciousness and thought should result. This objection is worth no more than the paper on which it is written.

Whether the universe as whole has purposefulness.

The physical world is a collection of sense-perceivables, determinations of one and the same Being, and therefore regulated by laws. It is evident it will never be anything else. Who has said that it would become anything else? The earth, when every observable living being had disappeared off it, would still be a collection of sense-perceivables regulated by laws. Or, rather, the disappearance of the living beings would have been a consequence of these same laws.

In order to deduce the immortality of the human race from the indefensibility of materialism, we should have to prove that it is essential to sense-perceivables and thinkables to be included in the unities of the personal human consciousnesses.

That which as sense-percept or thought is included in the consciousness of a man is certainly not peculiar to that man. It is not something which vanishes if that

man ceases to have consciousness of it (by going to sleep or dying). Sense-perceivables and thinkables are the same for all. The men who have been, are, and will be; the sentient and knowing beings, of whatever species, have in common something which necessarily survives the dissolution of each personal consciousness. Each of us can therefore assert with certainty *non omnis moriar*.

But this something—in substance Being—necessarily survives because it is not peculiar to any personal consciousness, or because it does not presuppose personal consciousness. Consequently its survival does not prove that a personal consciousness or the historical connection of certain personal consciousnesses must persist. It rather proves the contrary. Each personal consciousness, each historically connected group of personal consciousnesses, is a formation, an element of fact. It cannot be confounded with that of which it is the formation, with the fundamental condition of the possibility of every fact. It cannot have the same persistence.

I know that I have not always existed. I know it, certainly not because I have recollections of a time in which I did not exist, but because I deduce it necessarily from that of which I have consciousness. In the same way I know that the human race has not always existed. If the argument under discussion proved that humanity cannot end, it would prove that it cannot have begun. It would prove that what is necessarily concluded can be false. Or it would prove that the thing thought by us is only an insignificant formation of our individual consciousness, and not an essential element of things (which it really is, not as thought by us but as thinkable). This would cut our argument up by the roots.

Not only is it not allowed us to assert, but we must rather exclude the idea that the universe at any time whatever, earlier or later, has not contained, or is not

going to contain, sentient and thinking subjects, analogous to ourselves, though perhaps quite different from us in particulars which we could not imagine and which are of no importance. This is to be excluded, but for the reason already set forth, viz. that the universe, which now in fact includes us, is on the whole, and cannot help being, always the same, and not because our sensations or our cognitions are essential as *ours* to things, to which sense-perceivables and knowables are alone essential.

The universe always has included, and always will include, beings analogous to us. But this is not what we are discussing. We are asking if men or beings analogous to men or, in general, living creatures, constitute what we might call a higher organism which continuously develops itself in time. And the answer can only be negative. Of course this is in the sequence of ideas which we are developing; whether the development must induce us to abandon it, we shall see hereafter.

XIV

If we wish to understand the universe and value it, we must distinguish between what is due to the unity and what to the multiplicity. Wine can be decanted because it is liquid; it is intoxicating because alcoholic. Pure liquidness and pure alcoholicness are two abstractions. They are not two things which meet to form wine. They are characteristics of wine, inseparable, but quite distinct, and with distinct functions. So pure unity and pure multiplicity, two abstractions, are characteristics of the universe, absolutely inseparable, because each implies the other, but quite distinct and with distinct functions. To the unity we owe logical necessity, by which the universe is dominated.

Further elucidations.

To the multiplicity we owe the distinction of the individual unities of consciouness, spontaneity and purposefulness. In causality the inseparability of the one and the many is rendered manifest. The spontaneity of each of the many individuals is a variation. These variations are causally connected with one another, and determine others so that the many individuals are logically included in the one. All this has already been set forth and proved; let us confirm it in a brief summary.

Sense-perceivables and thinkables can be or are common to every subject. On this account the activity of one subject is numerically one with that of another: the Being of one subject is the Being of another—is *Being*. Every subject has a determinate form exclusively its own. Certainly the determinate form of a subject is also a determinate form of universal Being. But Being cannot but determine itself, and to determine itself it cannot but create distinct centres in itself, and among its determinations, while there is something common to every centre (for the centres have no existence separate from that of Being), there is something peculiar to each centre—that is, belonging to one centre only, and not to any other. Without this the centre would not be distinct, and Being would not issue from indeterminateness.

Every subject, every centre, is a unity of consciousness—a unity of the determinations which are common to it with every other, and of those which are exclusively its own. On the inclusion, in each unity, of determinations exclusively its own depend the exclusiveness, the distinction, and the reciprocal externality or irreducible separation of the unities. I see and know what another sees and knows. But I see and know in so far as a common content is associated with elements

which are not common. Therefore neither the seeing nor the knowing (unlike the seen and the known) is common. Therefore the activity also, although fundamentally one alone, as a conscious activity, as associated with a feeling, is divided into distinct and extraneous fields.

To distinguish between what is due to the unity and what to the multiplicity is not therefore a failure to recognise the logical primacy of the real unity, of Being. Real unity implies multiplicity and *vice versa*. Unity considered apart from multiplicity and multiplicity considered apart from unity are abstractions, each of which needs to be integrated by means of the other. To take account of the unity alone is to stop at an abstraction. It is to fall into an error opposite but correlative to that of one who takes the multiplicity only into account. In either case no theory can be constructed. Words may be spoken in which an incomplete reflection may suppose there is a meaning, but there will be none.

In conclusion, either Being has essential determinate forms other than concrete objects (and then it is no longer a certainty that concrete objects are its essential forms), or we must say, the activity of Being only becomes explicit, only realises itself, by breaking itself up into the distinct spontaneities of the individual centres, of the particular unities of consciousness. This breaking up does not abolish the unity. In fact, the variations to which the distinct spontaneities give rise are causally connected under the rule of logical laws : the individuals constitute a universe. But it is nonsense to refer to the unity as such—to the pure unity—what is a consequence of the multiplicity implicit in the unity. Those determinate forms which are consequences of the breaking up become incomprehensible and absurd if we make abs-

traction from the breaking up. They still have their root in the unity, but only indirectly in so far as unity implies multiplicity. They are not determinate forms of Being considered as simply one.

A tumbler is broken, and some one cuts himself with the pieces. A non-existent tumbler could not be broken, but that gives us no right to say that so and so cut himself with the tumbler as it was. He cuts himself rather because the tumbler is no longer in its former state. With alterations, which the acute reader will supply for himself, the same is true for the unity of Being and its breaking up. It is true *a fortiori*, because, as far as Being is concerned, the precedence of the unity over the multiplicity is a matter of logic and not of time.

XV

Discontinuity of the purposeful formations on the assumption that the sole determinate forms of Being are the concrete objects.

Although the purposefulness which manifests itself is certainly implicit in Being, in the one which underlies the individual formations, yet the universe in its totality is not ordered with reference to an end. The concept of purposefulness which we apply to the organisms, to the complexes of organisms, to the story of man, which is precisely determined by these applications of it, is not applicable to the universe as a whole. To speak of end in reference to the universe is to use the word "end" in a meaning which is no longer that which we know. At the most we can say that the end of the universe is to exist. But this is not an end which goes on realising itself by degrees in time like the particular ends. It is always actuated necessarily, because Being cannot lack its essential determinations, and these, just because they cannot be lacking, cannot change in the complex. The varying of the particulars is in the end

nothing but the permanence of the whole—that permanence which alone is possible, the whole having necessarily the structure which it has; just as (to illustrate) the uniform rectilinear motion of a body left to itself is only the permanence of its velocity, and hence cannot have a purpose for the same reason that it cannot have a limit.

The evolution of life on the earth cannot be disputed. It has undeniably a purposive character. Neither life nor (I was about to say *a fortiori*) the evolution of life can be produced by non-final causes. Besides that of life on the earth, there is also an evolution of the earth. The geological and biological evolutions cannot be separated. The first is a condition of the second, and the second exercises on the first an influence which cannot be neglected. We can also speak, not without foundation, of an (astronomical) evolution of the solar system. That this is regulated, and regulated with very great stability is quite manifest.

It does not seem that biological facts exercise any influence on the astronomical evolution of the solar system; their influence even on geological evolution is secondary and limited. Be this as it may, it is impossible not to recognise that a purposive order predominates in our solar system; however it is produced there, life on the earth would not have developed as it has, and would not be what it is—our culture and our philosophy would not have appeared—if the order of the solar system had been different. If we limit our consideration to the solar system, there is neither method nor motive to counteract the impression that happening tends towards an end, and that this end is ourselves and the development, ever more intense, more harmonious, and more conscious, of our powers.

But man cannot be the centre of the universe.

More exactly, he cannot be the centre in that limited sense of which we spoke, and hence he cannot be the only centre. The universe consists of sense-perceivables, each of which can be included in our consciousness, and Reason, which in this is rendered more or less explicit, is numerically one with that which dominates the universe. In this sense, not only humanity but each man is a centre of the universe. But, on the other hand, it is just the numerical unity of Reason (of that which is explicit in us and that which is implicit in things) which proves that the universe can have no infinite centres, and that, although every centre is essential to it and therefore indestructible, the complete development of a determinate centre or of any system of centres whatsoever cannot be essential to it except as a transitory fact.

Our solar system has great but not absolute stability. It goes on radically transforming itself, and some day it will be dissipated, perhaps by external disturbances. Moreover, no evidence justifies or suggests the supposition that its radical transformation and its dissolution are means to the attainment of any lasting universal end. The dissolution of one system is a condition of another being formed, in which an intrinsic purposefulness will again render itself manifest. But this intrinsic purposefulness will not be a continuation of that developed in the former system, and its development will also have a limit, in the same way and for the same reasons. Ordered, in the sense of causally connected, the universe certainly is. It does not appear from what we know that it is ordered with reference to *one* end.

What we know, what we infer from our observations, counts to a certain extent; in comparison with the infinite, the field of our observations is reduced to a

point, a moment. The purposefulness of the universe as a whole would be certain, although not deducible from the observations, if it could be rationally proved. But we conclude from the preceding discussion that—if concrete bodies are the only determinate forms essential to Being, from which it follows that causal connections are necessary—the purposefulness implicit in Being, only being able to make itself explicit in subordination to the causal connections, only makes its value felt in particular temporary formations without continuity.

XVI

In the universe there are activities which tend to realise ends, and do realise them to a certain extent. But the universe considered in its *all-inclusive* unity is without purposefulness. Its existence is a perpetual varying of parts which leaves the whole fundamentally unchanged. It is not a development carried out according to design, of which we could hold that it goes on approximating to a definite higher form of mobile equilibrium. As a necessary consequence of the intrinsic rationality of Being, mobile equilibrium cannot be lacking; but precisely for this reason it is not an end to which it tends. It is a fixed characteristic, invariably possessed. In one formation ends are realised for a time. In another we should say, on the contrary, that purposeless caprice predominates for a time. But the formations of the two kinds succeed each other, coexist, and interfere, by an intrinsic necessity. In this consists the mobile equilibrium of the universe.

Continuation.

What we say of the end may be said of value. The two concepts are connected and correlative, though they do not coincide. The spontaneity of every centre, if we consider it strictly, apart from its interferences

with those of other centres, is a principle of variation devoid of external purpose but not of value. The reason of its self-expression consists in it own value. Purpose and value, both quite embryonic, here coincide. The interferences, which are never missing,[1] give rise to complications, and associate with the positive value of the expression the negative value of the impediment. Hence a first external purposefulness, an end of the action which is no longer the action itself: the avoidance of evil.

The physical formations (abstracting from the spontaneities of the individual centres which are dissimulated outwardly and very poor inwardly) lack purpose and value. In the biological formations we have an evident and notable purposefulness, but in general slight intrinsic value. Vegetables, which have no unity of consciousness, lack intrinsic value, and that of the higher animals, though not negligible, is by no means proportional to the unconscious purposefulness of their organisation. Man, as a simple subject, has not much more value than the other higher animals, nor is this value of a different kind.

But man is also a self-conscious subject, an "*I*." As such, he proposes ends to himself clearly, and makes towards them with a fully conscious activity. The highest end he can propose to himself—an end which is essential to him, one of his constituents—is to know the world and himself, to develop activity according to its intrinsic laws, rendering himself conscious of these laws (*i.e.* knowing at the same time the world and himself) and gaining thus mastery over himself. In the "*I*" there is again, as in the monad, full coincidence between

[1] As the centres are not separated, the self-expression and the interference are one and the same fact: in this we must distinguish as many principles as the spontaneities which express themselves and interfere.

purposefulness and value. But the coincidence, due in the monad to the extreme simplicity of the content, is in the "*I*" the consequence of an extreme complexity associated with the greatest vivacity of consciousness. Purposefulness, which in the monad was only internal, and in the organisms had become external, becomes internal again, but in such a way as to be at the same time and *eo ipso* external. The "*I*" develops and intensifies itself in so far as it includes everything in itself and subordinates itself to that rationality which belongs to it in so far as it is universal.

The purposefulness and value which are essential constituents of the "*I*" are without doubt the highest purposefulness and value. They are absolute purposefulness and absolute value. But they are only realised in so far as the formation which is the personal "*I*" realises them. No one who takes pains to speak significantly will make of the "*I*" an accidental mechanical formation. The "*I*" presupposes the activity and rationality of Being. It is, we may say, Being become conscious of itself. The constituent elements of the "*I*" are not formations. The "*I*" nevertheless is a formation, because, besides those elements, their organisation in a particular unity of consciousness is essential to it.

The first and fundamental nucleus of the "*I*" is the monad, the centre of spontaneity and of one consciousness, on whose origin it would be idle to make theories or suppositions, as it is quite evident that the monads are coeternal with Being, since they are its essential determination. But in order that the monad may develop into a subject and into an "*I*," it must become the centre of an organism, and this organism must pass through the different phases of biological evolution and undergo the influence of history and education. Only

so can there take place in the unity of the monad that full and intimate agreement between the individual spontaneities and the universal reason, that subordination of spontaneity to reason which is the most complete expression of spontaneity, that explicit self-assertion of reason in the bosom of the one consciousness by which the "*I*" and its value are constituted.

All this presupposes an arrangement of facts which is certainly always realised, but always partially and temporarily. The "*I*" can form and develop itself on our earth, nor does it appear that its development is near its end. But it will end with the earth, if not otherwise, for the earth is destined to end. And then the immense work accomplished by our predecessors, by us, and by our posterity, in order to arrive at cognition and mastery of self, will be lost for ever. The evolution of life will undoubtedly recommence (with a great variety of secondary forms, the same in all essentials) in the system which will be re-formed from the fragments of ours and others, but without obtaining any part of that evolution of which we are the products and in part the actors, as ours has obtained no part from those which preceeded it or are realising themselves contemporaneously in other systems.

XVII

The value of the "*I*" (some say) is the value of the activity—that is of Being, which never ends. But the activity of the "*I*," though only activity of Being, is yet determinate activity. Hence it cannot be identified with the activity of Being in so far as that is one and indeterminate. There is not one "*I*" only—there are many; and there must be many, since the activity of Being only determines itself by forming in itself distinct concrete objects. These are

The value of the person and the end.

all determinate forms of the same Being; but transitory forms, whose groupings do not constitute a continuous connected whole.

Being potentially contains everything, and hence every value. But potentiality is not actualisation—the seed is not the tree. Suppress (*per impossibile*) the individual unities of consciousness and the happening which is a consequence of them and constitutes their content, and what remains? The eternal elements of value, but undifferentiated, slumbering in the unconciousness of Being. Contrast, harmony which presupposes contrast, reality, life, cognition, action, value—all vanish.

My value is a value of Being. Who doubts it? I have value because I am. But for me to have value, it is not enough that something exists: *I* must exist. I, with all my determinate features, not excepting the most insignificant, because they are all constituents of the unity of consciousness, a necessary condition of self-consciousness, of value. I have value in so far as I work, bending my spontaneity to the universal laws (which are implicit in me, and would not become explicit and known without that working), and preventing it from seeking an insipid pleasure in the features which are peculiar to me.

To be what I ought to be, I have not to live in the clouds but on earth. I have only to accomplish the acts from which daily life results, only to transform a content, which in part is common to me with others, partly even with everyone else, but in part is peculiar to me. The peculiar and the common are bound together in the unity of one consciousness which is distinct from every other. The pains and pleasures which I must be capable of supporting, are exclusively mine. Mine also exclusively are the endurance, the fighting, and the victory or the defeat. Universal reason creates value in so far as it illuminates and harmonises the manifestations

of a spontaneity which is not separate but distinct. Value presupposes distinct spontaneity. In other words, I have value because I am a certain distinct individual.

Certainly, my personal value is the value of *the* person, and not of a particular person, myself. But to conclude from this that persons, *qua* persons, can be reduced to one, would be no more reasonable than to assert that a cube has only one face, for the fine reason that every face of the cube is a face of the cube and that this is a characteristic common to each. Every person is a determinate person with a distinct consciousness. This is a characteristic common to all persons, but this same characteristic includes, as one of its essential marks, that each person is *a* person distinct from every other. A person is a particular spontaneity intrinsically organised according to a universal law. To constitute it we need the particular of spontaneity, of distinct consciousness with a partially distinct content, and the universal of law.

The absolute continuity of the development, the permanence of the values, cannot be preserved in any way, if concrete objects are the only determinations of Being, if the potential value of Being becomes actual only in the individual persons; for these, being subject to the bonds (external to each of them) of a necessary and therefore non-final causality, can only be transitory, each individually and their groups collectively. To preserve the permanence of the values we must admit that causal necessity is subordinate to an intentional finality—admit, that is, that Being is endowed with determinate forms other than concrete objects, and produces concrete objects in itself not through the necessity of self-determination, but to attain an end, to actualise a pre-arranged design. In this case the concept of Being is transformed into the traditional one of God.

CHAPTER VIII

CONCLUSION

I

LET us sum up in a few words what we have done, in order to bring clearly before our minds what remains.

Relation between the conception of the divine and the conception of value; between the conception of value and the value lived as feeling. The problem which remains to be solved. Condition of arriving at its solution: which means to be *ex veritate*.

The unity of Being, *i.e.* the existence of a Universal, Rational, Eternal, Divine, which penetrates things, is no longer to be disputed. Materialism, under whatsoever form, and coarse Atheism, are eliminated for ever. The realm of values is not that of the pleasures and pains of the senses, but that of the rational knowing activity. At the same time we have overcome and definitely eliminated the common conception of creation, according to which God and the world would be outside each other.[1] That the divine is immanent in things, and that things have existence in the divine, is as certain as the existence of the divine and of things.

It remains to be known if the divine exists only as immanent in things, or has also determinate form peculiar to itself—whether it is or is not a unity of consciousness (a unity which would be transcendent with respect to the individual consciousnesses, each of which is again transcendent with respect to every other).

This problem is truly *the Greatest*, because on its solution depends that of the others, and the precise and

[1] This concept is by no means essential to religion, since we see it explicitly contradicted by formulas, certainly not meaningless, which form part of the surest Christian doctrine.

exact meaning which we must attribute to the solution of the others. Only after having solved it shall we have a clear, final, valuable concept of reality, of ourselves, and of our situation in comparison with reality. How can we solve it?

The lamentations, not yet out of fashion, as to the limits of *human* reason are unjustified. For the solution of the Great Problems we do not require the distinct cognition of every particular. A general concept of the organisation of the whole is sufficient, and the whole is organised by a reason which in the main coincides with ours. And yet those lamentations are not altogether beside the point. The distrust of *reason* is unjustified; what is justified is the distrust of *theoretical* reason alone. The agnostic error is based on the confused perception of this important truth, that the universe is not only a collection of contents variable according to certain laws, but includes also values which are essential to it.

That it may be possible to penetrate the rational organisation of the universe, we must neglect none of the fundamental characteristics of the universe and of reason. To construct a theory without caring about practice is contrary to common sense. Theory must be the theory *of* practice, and it is itself a practice. To know signifies to value. The Great Problems are problems of values.

About the concept of value to which we have come, there are two remarks to be made. (1) The lines which we have positively laid down are exact and definite; no further investigation can cancel or change them. In the field of finites (we said) the greatest value, the true and absolute value, is that of the person. It is realised by the individual spontaneity, which renders itself conscious of universal reason and adapts itself to it. To

deny this is to fail to know value. It is like admitting that a number can at the time be prime and divisible by another. (2) But the concept of value to which we have attained is not altogether adequate. Further investigations can and must, without cancelling or changing the lines positively laid down, introduce new ones. In fact, and by abstracting from all other questions (unsolved indeed, but secondary for us), we do not deduce either the permanence or non-permanence of value.

Value will or will not be permanent according as the divine personality does or does not exist. But if we limit ourselves to a theoretical consideration of the universe, the existence of a personal God appears to us an unjustified hypothesis. A doctrine which does not admit presuppositions (and no doctrine ought to admit them) must eliminate them. So that, to decide if value is or is not permanent, or to form a definite concept of the universe and of our position in comparison with the universe, there is no other way than by fully grasping the concept of value. So, and so only, as it seems, can we also ascertain whether God does or does not exist as a person.

The problem is more difficult than all those which we have solved or attempted hitherto. We shall see presently the reasons for this greater difficulty. To discuss it thoroughly, we should need a special book; let us be content for the present to state it as clearly and precisely as we can.

Some say, "What is the good of toiling, conquering ourselves, renouncing pleasure, refusing to avoid avoidable pain, if all this produces no lasting fruit?" Idle talk. He who does not make efforts to attain his own value as a person escapes, it is true, the burdensome fatigue which is required to do so, but he will be no

better off as an animal, or, rather, he will be worse off. Even from the eudæmonistic standpoint, the only safe conduct is reasonable conduct. The value of the person remains, even if not permanent, yet the greatest in the field of finites—a maximum both in line of fact and in line of possibility. The contrary opinion is not worth discussing—it should be rejected as unworthy.

But we can agree in recognising the value of the person, and yet differ in the interpretation of it. On the one hand we note: the world, though not a paradise, contains pleasures which only a mad preoccupation can make us believe negligible. And the pains, which are not lacking, hinder us from rusting; they serve us as a school, and spur us on to the conquest of value. Reasonable conduct implies a manly acceptance of the necessary laws, including those which terrify the timid. And as it becomes habitual, it inspires us with that courage of which we certainly have great need, and which for that very reason is an essential element of value. No one can assure himself or another of a stable happiness. But one who is not content with his own personal value, but demands happiness as well, proves thereby that he has not actualised his personal value.

On the other hand, it is objected, "Does not the doctrine set forth—lofty certainly and austere, but not pessimistic—demand from man more than man, with rare exceptions, is capable of achieving?" To have value we must know how to face pain and support it with firmness. But there are pains—moral as well as physiological—which surpass the common power of resistance. One who suffers them without being comforted by the well-founded hope of a lasting compensation is conquered by them. His personality, without being destroyed, is prostrated by them. The man then suffers without

power of resistance or self-adaptation. Degradation is added to pain, and caused by it. The person survives only to find that his value is destroyed.

Men who, all considered, are favoured by fortune, because they know that their sufferings will not be entirely vain—men who sacrifice themselves for a great cause, like soldiers who give their life for victory—suppose that all are in the same conditions. They imagine that all have their strength of resistance—or what they think they have, while the suffering is remote and does not threaten. But these favourites of fortune are very few. And, at bottom, the favours which those few enjoy are illusory. What is there that we can truly call a great cause, if not only the individual person but the whole of humanity is to disappear sooner or later without leaving the slightest trace of itself? Do a thousand or ten thousand generations count for more, —are they of more value, in comparison with eternity—than the life of a man, than one single instant?

We aspire to happiness, and we cannot free ourselves from this aspiration; and if we could it is more than doubtful if we ought to. The aspiration towards animal enjoyment must be fought against. To fight it and to conquer it is necessary for the realisation of value—is a part of it. But here we are speaking of the aspiration towards a happiness founded on value, which is constituted by the agreement between *all* the elements of the person. If such a happiness were not attainable, value would not be attainable either, for value also consists in just this agreement.

And the agreement does not exist unless it is permanent. A system which must necessarily disorganise itself or be disorganised (it is all the same, for its external relations also form part of a system)—is already potentially disorganised. To know that it

will be disorganised and at the same time to value it as if actually fully organised and harmonious, is contrary to common sense. No one is content with the immediate present. No one would rejoice at the birth of a son if he foresaw that in a few days both son and mother would be dead. The present only has value in relation to the near future, and this only has value in relation to one more remote, and so *ad infinitum*. Man cannot help asking about the future. He does so always. And yet he asks vaguely, and contents himself with a no less vague answer. The consciousness, only partially explicit, which he has of himself and of things does not permit him to understand the true meaning and the gravity of the question. Therefore he imagines unreasonably that he can content himself with what cannot content him—with what in fact does not content him. We understand the meaning and the gravity of the question. And we say,—If values were not permanent they would not exist. But they do exist, and this is put beyond dispute even by the considerations urged by our opponents; therefore they are permanent. The individual person is a product of reality—though not every element of the person is a product. So far granted; but reality could not produce the person with the requirement which is implicit in it, if this requirement were intrinsically unable to be satisfied, if it were unreasonable. A reality in which values arise must possess a lasting intrinsic value of its own, in which the individual values agree, realise themselves, and in some way perpetuate themselves. Happiness and value can be contrasted in many cases, but the contrast must be a means to the realisation of the harmony of a value which is at the same time happiness and lasting. If not, reality would be incomprehensible and absurd.

Personal value certainly does not vanish entirely

even if we do not admit its permanence. Something remains of it, and something normally superior to normal pleasures and pains which can be subdued by the normal man. But it loses that absolute supremacy that we still ought to recognise in it. It becomes comparable to pleasure and pain, though of a different nature from either. Like these, in fact, it is a motive of our actions, higher because more stable, but not absolutely higher, because not absolutely stable.

To sum up. According to some, the absolute supremacy of personal value, its true characteristic of value, implies its permanence. According to others, it is essential to value, on the contrary, not to imply permanence, though this does not prove it to be transitory. To believe that value is not supreme, is not true value, unless it is permanent, is to fail to recognise the very essence of value.

The opposition between the two concepts is radical. Each excludes the other, but from this mutual exclusion what can we deduce? To choose between the two, it would be necessary, as we noted, to comprehend thoroughly the concept of value, to see how to introduce into it other features. But, as we also noted, the choice cannot be a question of pure theory. Of the two which are before us, which is the concept of real value—of value as it is lived and actualised in the fullness of upright consciousness?

Here we encounter the difficulty of which we spoke, the greatest that philosophy has to overcome. For the concept of value, in respect of the elements of it which still remain indefinite, the touchstone of comparison is in the end the individual consciousness. But not every individual consciousness can be a good touchstone, but only the upright consciousness of the truly virtuous man. I do not mean of the man who respects the rules

of health, of prudence, and of external decorum, who lives among his equals without jostling them or being jostled by them, who keeps his balance in equilibrium from every point of view. Such a man enjoys public esteem and deserves it, but perhaps his principal aim is to win it, and before the tribunal of reason his value is *nil*. Neither do I mean the man who has no failings; I believe there are no men so perfect. I mean the man whose will is always directed towards the good, although he does not always realise it. Only this man knows thoroughly the true good, the true personal value. He knows it because he lives it within the limits of the possible.

We find ourselves brought back to a point on which we touched at the beginning of this work. To know the truth, and in particular this which is the supreme truth, we must be *ex veritate*. We must be pure of heart, we must desire only that which in itself is desirable, we must consider and feel as good and as value that which in itself is good and is value.

We must have a lofty, a really lofty feeling. In words, there is no one who does not recognise the supreme value of virtue. In fact, many call virtue that which we ought in reason rather to call vice—vice which is not recognised externally, which escapes the sanctions of opinion and perhaps even of remorse—vice hidden but radical, and therefore so much the more serious in its consequences.

Although we all have one and the same reason, men can be divided into two classes, good and bad, according to the fundamental use which they make of that reason. The difference in certain theoretical opinions is only an expression of the difference in practical valuations. Theoretical error is in every case the expression of a practical disagreement between the person and reality.

The activity which affirms is the same as that which works. Affirmation reduces itself to action—is substantially an acting. Conversely, the conscious acting of a person is always directed according to his affirmation and presupposes an affirmation. As the relations with reality are an essential element of the person, it is clear that the disagreement between the person and reality implies an intrinsic disagreement in the person—a disagreement which can be more or less explicitly apprehended, because the individual person never has complete consciousness even of that part of reality which belongs to him particularly, much less of all reality.

Hence an error, a discord, always wounds the internal organisation in which personal value consists. True, it does not always wound it in the same way. Premature baldness and blindness are both maladies, but not equally serious. The individual person is incapable of completely bringing into system around him all possible internal and external experience. His limitations are extenuating circumstances for many errors, which in consequence cannot be called faults. A man may be a worthy man even if he thinks the diamond more like glass than charcoal.

But these extenuating circumstances can no longer be appealed to when we are treating, not of the systematisation attained but of the point which ought to serve as centre to the systematisation, of the law according to which one strives to organise *himself* (how far he succeeds is another matter). Here theory and practice are merged and identified. It is impossible that my conscious intentional action should be conformed to a law which I do not recognise. Conversely, my not recognising it (I do not say my inability to formulate it precisely) may be only a consequence of my not conforming to the law.

The conclusion is now manifest. Let us suppose, in the first place, that value is not permanent, and that I consider permanence essential to it; in the second place, that value is permanent, and that I consider non-permanence essential to it. In both cases I yield to a desire which is certainly a product of my soul, but which I must eliminate in order that my soul may conform, as far as it is able and willing, to the universal law. I am running after a dream of my own, whereas the realisation of my value requires me to renounce my dreams.

The dream, quite different in the two cases, can always be reduced to the exaggeration of an element of value.

Each man, in the field of human experience, ought to be good and energetic. He ought to work for others, and count on the aid of others; he ought, moreover, never to lose sight of himself, and ought to render himself capable of sufficing for himself. In the field of human experience, the two requirements, far from excluding each other, integrate each other. Only the good are truly energetic; only the energetic are truly good.

But man—meaning the social man—is to be considered also in relation to the whole, and not merely in his relations to other men. And we ask, in reference to his relations to the whole, can man, or can he not, count on extrinsic aid?[1] In other words, can he, or can he not, count on a universal law which assures the success of his efforts if well directed? Can he, or can he not, count on the permanence of values?

Evidently if he cannot, he ought not to count on it. Goodness, preserving its value in the relations of man to man, has no value at all in reference to the

[1] Extrinsic, in the same sense in which the aid which comes from another man, is extrinsic to each of us.

relations of man to the whole. To attribute to it a value which it has not is to let ourselves be conquered by a dream of morbid sentimentality. The supreme law of the person is a law in this case not of goodness but of energy. We must still be good (with our equals), but only in so far as being good is a condition of being strong. We must so rule ourselves as to be ready to face any fate whatever without hope of compensation. We must persuade ourselves that in having so ruled ourselves consists the reality of our value.

But, no less evidently, if man can count on the permanence of values, he ought to do so. In the relations of man to the whole, and hence also in reference to the intrinsic constitution of the person, the true law, then, is a law of goodness. Energy preserves a great value without doubt, but as a condition of goodness, as subordinate to goodness. In this case, to persuade ourselves that the reality of our value consists in so governing ourselves as to face fortune with firmness without hoping for a compensation is to let ourselves be conquered by a dream of mad pride.

The permanence of values must be either asserted or denied. There is no middle course. The two tendencies which would lead us to assert or deny it respectively unite (as we noted) in the limited field of human experience. But in the field of complex happening, considered in its totality, one only is fundamentally true and valid. Which of the two? Virtue does not exist in the mean here, where there is no mean. It exists in the truth. But conversely, the truth is that which is recognised by virtue, and cannot be recognised in any other way. The problem is thus set out in its true terms; it remains to be solved.

The writer believes in the permanence of values. But naturally he cannot give as an argument his own per-

suasion, however firm it is, and however well justified it appears to him.

The unity of reason assures us that the influence of diversity in practical criteria—let us say simply the influence of wickedness—will gradually be restricted. A time will come when the bad will have to be content with doing wrong, and will no longer be able to assume the appearance of justifying their own erroneous valuations with systems which seem, but are not, coherent with systems which have the appearance of truth. That moment will come. One who has confidence in the destinies of man and in the power of reason cannot doubt it. But it has not yet come, and we must prepare for it. To contribute to such preparation was the only end which I proposed to myself in writing.

APPENDIX

I

GENERAL CONSIDERATIONS

"THE book is completed and closed . . . " and, all considered, it is a difficult book.

I am not speaking of the matter. I did not wish to write a "popular" book on philosophy, nor could anyone reasonably pretend to do so. But on every subject one can write in such a way that a well-prepared reader can understand it without too much fatigue. The fatigue which I have imposed on my readers is, however, really excessive.

The reason of the difficulty lies in its excessive brevity. In the first place (there is no one who does not know this) things easily escape us unless they are repeated. My book certainly does not lack repetitions. I have not allowed the more important things to escape notice. I have rather sought opportunities for repeating them. Certain points are dealt with again and again with perhaps too much insistence. But mere repetitions are not the most helpful to us, but rather those which bring before us as we proceed different aspects and relations of the matter under consideration.

Quite a small number of experiments, all alike, will make even a baby know that water quenches thirst, but to make anyone understand the importance of water in nature and life much more is required. We must have made many varied observations which present water to us under its different forms, in its manifold relations, to make ourselves recognise in water an element essential to a large number of bodies and processes. The depth of the meaning of the term "water" is sounded only by a scientist.

All will have grasped, I hope, that certain concepts are

fundamental to my book, but their importance lies in their being fundamental to *thought*, and not only to that order of thoughts which I have set forth. Between my readers and me my inkstand is an intermediary which I know I can trust. I have no idea of excusing myself for lack of intrinsic clearness in my argument. That clearness which comes from the multiplicity of relations is necessarily lacking, for I have had to content myself with merely indicating the relations when I have not omitted them altogether.

Another circumstance must not be neglected. It was my purpose to construct, in its general lines, a system which should be independent of all presuppositions. And, frankly, I think I have accomplished my intent. But it may be that the fewness of the steps in the development may sometimes give ground for the contrary belief.

Take, for instance, the chapter on Sensation. The opinion which we have in general about external reality implies suppositions absurd as well as arbitrary. But they have become habitual to us. Therefore we not only fail to perceive their absurdity and arbitrariness, but we do not even apprehend that their admission is a supposition. A different doctrine, which limits itself to the connected exposition of facts, and renounces every supposition, offends our habits, and hence appears to us paradoxically hypothetical. It seems to us hypothetical precisely because it is not so, because we see those hypotheses in whose favour we are prejudiced excluded from it.

That the reader may become capable of it, we must lay the doctrine before him at great length and in full detail. We must place before his eyes its different applications, and compel him by so doing to recognise that by means of it we can solve the problems which he thinks he has solved—but in reality has not—by the doctrine he is used to, and many others which by the ordinary doctrine are transformed into so many enigmas. We must saturate him with the new doctrine at such length as to familiarise it to him. In such a way only can we succeed in conquering that species of unreasonable but instinctive terror which the unprepared mind experiences in the first stages.

On a doctrine which will seem paradoxical I only write a few pages. These ought to suffice, because they include all that is necessary to explain and prove it. Strictly speaking, more would

be superfluous. But the superfluous is a necessary thing for slovenly readers.

"I believe, and believe I believe the truth," that the doctrine is sound, alike on its general side and in the particulars. There are few particulars, because this is a general treatise. Yet all the essential ones are there, and I hold to them no less than to the general side of my treatise. I do not know what to do with empty abstractions. I am ready to defend them [1] all, or, rather, I am persuaded that they can well defend themselves. In indicating the brevity of my diction I surrender nothing. I only wish to warn critics that their function is rendered a little more difficult.

I do not make quotations. From my book alone, it might be believed that my doctrine was a product of my solitary reflection; and this will be a great hindrance to comprehending it. The meaning of a doctrine which has a meaning and a value lies in its relations with others, in its being an interpretation and a complement of the others.

There is no need for me to explain what has obliged me to limit myself to a mere exposition, leaving out altogether or barely indicating references. My book would have had to be at the least twice as long to give my readers the means of assigning to my doctrine the place which befits it among others.

But I write for those who have knowledge, not for beginners, and hence the inconvenience of which I am speaking is greatly reduced, though it does not entirely vanish. One who knows will find in my book no more than indications, but they will be enough to enable him to realise the position if he wishes to do so. This is a matter into which I cannot enter. There is one very convenient way to judge the erudition of a writer, viz. to count his quotations. One who applies this criterion to me will fancy he can dispose of me in a couple of words. He is welcome to do so. A truly learned man in good faith will recognise that my book, though so small, has been composed much more through reading than writing. The doctrines set forth in it are by no means my own imaginings. There is little that is new, and what there is is a necessary, natural, and obvious consequence of what is known and in

[1] *i.e.* the essential particulars—not, of course, the empty abstractions.—T.

general has been long known. The original matter can be reduced to my having made some comparisons. Certain comparisons being made, everyone immediately understands how certain doctrines, apparently alien or contrary, mutually integrate each other and, so to speak, flow into one.

Though less than it might seem at first sight, there is inconvenience in this. The doctrines presented without explicit references to others already known are of necessity less clear. The following notes will be of some service in elucidating them; full clearness and their final justification can only result from a reconstruction or a historical deduction. The present work ought to be followed, I hope before long, by another, in which I shall put in evidence how the solutions obtained to the Great Problems are the results of the development which philosophy has been slowly undergoing. I could have wished to publish the two books together, but it was impossible.

Some will think that it would have been better to unite them, and reduce them systematically to one. I think otherwise. To one who has conquered the difficulties of the exposition —and to an educated reader they are not insuperable—the brevity of the work and its purely expository character will render it easier to form a concept of the whole. The historical discussion which follows will thus find a sure connection, and prove more definite and more profitable.[1]

These Appendices are not a provisional supplement of the historical investigation, and they do not constitute a part of it. They serve (not all of them, but most) to establish certain points of contact between the doctrine set forth and other

[1] "Dass es gewagt ist, Neues und Wichtiges in so engen Rahmen zusammenzudrängen, ist mir vollständig klar, aber ebenso klar, dass ich es wagen musste. Der Vorteil aus der Klarheit und Uebersichtlichkeit des Gedankenganges schien mir grösser, als der Nachtheil, der aus dem Mangel an Ausführung erwachsen kann." (W. SCHUPPE: *Grdris. d. Erkenntnisstheor. und Log.;* Berlin, 1894, p. iii.) The "Klarheit" is problematical (in fact Schuppe's book is not easy). Or rather we must make a distinction. A compendious book, without developments and historical references, is hard to understand, and in this sense not clear. But, this difficulty once overcome, it gives us a precise and brilliant conception of the whole. It then becomes clear in this sense—that its inner organisation appears to us evidently; whereas a diffuse book is read and understood without difficulty page by page, but the problem which then arises, how to draw the true final profit from it, proves much more difficult of solution.

doctrines, more or less analogous, of well-known recent writers. Therefore they take from the doctrine set forth that apparent solitude which we said was the principal obstacle to the penetration of its meaning. Few in number and fragmentary, they only elucidate some points and some aspects of the doctrine expounded, and by no means all that needs elucidation. Therefore I do not say "they suffice," but only "they will be useful."

My previous publications have had some readers to whom I feel myself bound by a particular obligation. For their sake I think it necessary to add here some warnings about some principal points of my doctrine.

(A.) What is True and What is Consistent

A system S of propositions (which could also be reduced to a single proposition) is the result of a legitimate deductive process—we say commonly that S is *true*. I prefer to say that it is *consistent*. It is quite evident S would not be consistent if it were not true. From the process of which it is the result, S receives an immediate sense, and in this sense it is true beyond discussion. It is in this sense an element of "Science," a certain foundation for further investigations.

Analogous investigations of another kind may have conducted us similarly to another result S_1, as consistent as S.

Let us connect S with S_1. It may be, or rather it nearly always happens, that the new process of connection makes us discover in S or in S_1, or in both, a new and deeper signification. This naturally does not exclude or destroy the first, nor does it even modify it in itself, but it adds to it, and in adding to it, it integrates it.

The distinction between the simply *consistent* and the *true* lies wholly in the further signification which the single elements of that which is consistent receive from their connections. The true is a system connected in itself. And the exact interpretation of its elements is that which each element receives from its situation in the system. What is consistent is true *in the sense in which it is consistent*, but it may become an error if we straightway attribute to it the value of an absolute truth, going unreasonably beyond the process which has led us to recognise it as something consistent.

I shall explain myself better by some examples. It is *consistent* that the sun at different hours of the day is seen successively in different parts of the sky, *that it moves.* But this apparent movement may not be the absolute movement. This does not mean that the knowledge of its apparent motion has no value. (Rather it is an indispensable foundation for arriving at the discovery of the *true* constitution of the solar system.) The knowledge is true in the sense in which it is consistent; but from its being consistent it does not follow that it is true in any other sense.

Plane and spherical trigonometry are alike consistent. But the first implies, what the second does not—*i.e.* the postulate of parallels. Therefore the two trigonometries, though they have the same scientific value (for each is the result of an intrinsically unexceptionable construction) have not the same value in relation to an absolutely true conception of space.

Science is the aggregate of what is *consistent.* It is not chaotic, but it is not arranged in a rigorous unity.

Metaphysics is the system of what is absolutely true. Metaphysics can only build itself up on the basis of science. As long as metaphysics is not constructed, there can only be *opinions* about the solution of its problems.

In this, which is my old doctrine, I have nothing to change. I have only accentuated more strongly two points. First, that metaphysics is constructed by making, not a *synthesis* of (scientific) cognition, but a theory of cognition. Secondly, that under the concept of science as it has been defined there enter not only the sciences, properly so called, but all cognitions have scientific value as *given* for philosophic reflection.

(B.) Metaphysics and Morality[1]

A conception of the universe obtained without taking moral elements into account has no definite value—it cannot constitute metaphysics. This I always affirmed, even when my reflection—which, however, never remained extraneous to moral consideration—turned by preference to the results of the sciences (especially physics and mechanics).

I formulated in various ways, gradually perfecting it from a

[1] This argument is discussed at greater length in a succeeding appendix.

scientific point of view, a mechanical conception of reality. But I said—and I expressed my profound conviction of which no one can doubt—that I did not myself attribute to such a conception the value of a definite metaphysical truth. But as for some time I restricted myself to re-elaborating it, and as I grew attached to it through defending it, it might appear (perhaps it was partly the case) that I attributed to it an increasing weight. The road on which I had started was leading to frank materialism. How the moral values, or values in general, must be introduced into a conception of reality, I had not succeeded in discovering. My thought was not in full agreement with itself.

Agreement on this point is now obtained. A requirement which I had never failed to recognise is satisfied.

I do not solve in this book the true cardinal problem of metaphysics. A lacuna, ever substantially the same, remains, but with a different signification. My past investigations closed with a question: Is it possible to find an adequate place for morality in a reality so constructed? It seemed then that the answer must rather be No. Now it is quite a different thing. To my conception of the world value is no longer extraneous, and we no longer seek if, or how, it is possible to make it enter. The problem which remains to be solved about the conception of the world can only be solved (according to my recent way of looking at it) by thoroughly grasping the concept of value.

As value is at the same time conceived and lived (conceived in so far as lived, and lived in so far as conceived), the thorough grasping of its concept implies an elevation of the feeling with which it is associated. The importance of the feeling, on which I have many times insisted, is now, unless I err, put in its true light. To arrive at the truth (so I said, and so I say) we must be animated by a *right* feeling. But the right feeling is a rational feeling, one in which there is perfect accord, or rather identity, between the theoretical and the practical requirement.

With those more or less vague reservations which one who has consciousness of the moral questions cannot get rid of, I always maintained determinism as scientifically proved. On this point my doctrine has radically changed. The change, which serves to eliminate the contrast between the cognitive

and the practical requirements, is fully justified also by considerations of theory alone. I seem to have made it clear that if we eliminate a multitude of absolute beginnings, happening (implicit in knowledge, for we know facts, and our very knowledge is a fact) is no longer possible.

Another change of no less importance. My doctrine (with the reservations indicated) could be described as irrationalistic. Now I understand that no fact is possible outside the unity of a reason, essential to all that exists or happens. I had erred, and see clearly again. But I must put forward two considerations in order that we may draw from my confession the teaching which is implicit in it.

If reason is understood (many understand it in no other way) as a *human* faculty, something *beyond* reason cannot be denied. Now to be *beyond* reason and to be *irrational* have the same meaning. To exclude the irrational we must see in human reason the consciousness of universal rationality. This in the end amounts to saying that there is a system of thinkables to which it is by no means essential to be thought by me or by anyone whatever—thinkables numerically the same in the consciousness of every thinker. These conclusions, which I content myself with indicating, are not commonly accepted. To refute them, and not to admit the irrationality of the real, is contrary to sense.

If we accept them, we must nevertheless recognise that happening *in time* implies something that cannot be reduced to pure logicality. It implies non-logical elements (the absolute beginnings of which we spoke). The non-logicality of an element is not to be confounded with irrationality. The One, without ceasing to be One, is broken up into a number of distinct objects. Every distinct object is included in the One, and this inclusion in the One is essential to it. Consequently it is not beyond reason. But its being a (particular) distinct object implies something which distinguishes it from the others and from the One. This something cannot be reduced to the pure and simple One. It is in the One, but it is not the One. It is subject to reason, but it is not of itself reason. It is an alogical something, such as we have just now recognised as an absolute *beginning*, essential to the happening of facts, which it is true are connected together by rational laws, but without their con-

nection being reducible to a pure and simple logical non-temporal order.

I have made more than once a profession of simple empiricism. Needless to say, I retract. But if I was wrong, we must recognise that my error was not without reason. That man is endowed with a reason which has an absolute value also in reference to the cognition of reality, can signify nothing but this: That man is such as to be able to render himself conscious of the rationality inherent in things, or of their unity.

Let us leave aside every question about the origin of the subject. Let us speak of the subject in so far as it has a history which is known, partially at least, to itself. The subject renders itself conscious of the rationality inherent in things, or of their unity, or of certain elements which are (intrinsically) the constituents and (with respect to our reflection) the evidences of this unity—space, time, the categories—in so far as it renders itself conscious of certain *facts*. A rationality which is not the rationality of facts and of concrete objects, which cannot be reduced to the unity of them, is a meaningless word. The subject is rational in so far as it also is an element of a reality, which is rational in so far as it is one. That empiricism is absurd which, supposing the irrationality of happening, supposes also that happening becomes ordered of itself in the consciousness of the subject (which in such a way would render itself rational by means of experience). And in the end it can be reduced to apriorism. The arrangement which the facts learned had not in themselves can only be introduced by the subject in learning them. But that apriorism which makes of reason an exclusive property of the subject, which separates reason from happening, is no less unjustified, no less irrational.

Reason, says Ardigo profoundly, is the rhythm of experience. Facts (naturally including those of which a particular subject has consciousness) are subject to rational laws, because they occur in a reality which is *one*. But we cannot speak of a rationality other than that essential to facts. If not every subject is equally rational, that proves that an explicit consciousness of the laws presupposes a certain number and a certain variety in the contents of consciousness. Hence reason, even

when understood as the reason of the subject, although it is certainly not the product of an irrational happening, yet cannot be separated from happening or from experience.

(C.) Matter and the Soul

According to Mach (a very similar doctrine is maintained by Schuppe), there is no true distinction between psychical and physical facts; or, at least, only psychical facts occur. These may be differently grouped. A subject is the unity of certain psychical facts. A body is also a group of psychical facts (still a unity, but of another kind)—of psychical facts which can be, and in part are, included in the unity of a subject, and even of more than one subject.

I accept this doctrine which (this must be said a little more emphatically than usual) was first set forth clearly and with precision by Ardigo.

We must not confound the spiritual with the psychical. Psychical signifies a particular, a concrete object, always an element of fact. Spiritual, on the contrary, is relation or law. Although, according to us, relations and laws cannot be considered as real, if we make abstraction from the concrete objects (as we cannot speak of geometrical form except in relation to some matter), in every way it is clear that, besides concrete objects, there are relations and laws implicit in the concrete objects themselves. And man is spiritual in this sense, that his consciousness is capable of rendering relations and laws explicit to itself.

The distinction between spiritual on the one hand, and psychical and material (fundamentally identical as we pointed out) on the other, is not conceived by us otherwise than by the scholastics who followed the doctrine of Aristotle. In the text the doctrine is indicated without being developed. It cannot be developed here, and much less put in connection with that of the scholastics. But that the scholastic doctrine and that accepted in the text coincide substantially in identifying the psychical and the bodily and distinguishing both from the spiritual, results with sufficient clearness from the following propositions.[1]

[1] See *Urraburu Comp. Philos. Schol.*, Madrid, 1902–4, vol. iv. p. 240.

(1) The intellect is a non-organic or spiritual faculty. (2) There is sense in every animal, intellect in rational animals only. (3) Sense knows only the particular, intellect knows the general. (4) Sense only extends to material objects, while intellect extends also to immaterial objects. (5) Sense knows neither itself nor its operations, while intellect knows itself and its operations.

It seems evident to me that sense is not something different from what we now call matter, in other words, that the physical world can be resolved into an aggregate of facts of consciousness or of psychical facts—the reality of which is not to be confounded with their inclusion in a determinate unity of consciousness or in the soul of a determinate animal. No one will say that the soul of a cat consists in its brain in so far as visible, tangible, &c., but the brain is nothing but a collection of visible and tangible objects, or of sense-perceivables, or of facts of consciousness. The existence of matter as something extraneous to consciousness, heterogeneous to consciousness, must absolutely be excluded.

On the relations between the simple consciousness (sense) and the self-consciousness (intellect, *cf.* prop. 5) there would be much to say. Here the doctrine accepted by us and that of the scholastics seem irreducible. About this we will say no more at present. The argument is interesting, but the discussion would be too long.

In my previous works I had accepted a different doctrine. The world (so I thought) is a collection of primary elements or monads which operate on one another. The mutual actions of the monads have effects of two kinds. They determine, that is, (1) a variation *in* each monad, (2) a variation *among* the monads, or they modify their grouping (spatial distribution). The facts of the first kind are *psychical*, those of the second *physical*.

The doctrine makes us understand indeed the irreducibility and at the same time the inseparability of the two orders of facts: that same *thing* which physically speaking would be a true atom, psychically speaking would be a soul, &c. But it cannot be maintained epistemologically—a defect which it has in common with every form of animistic pluralism and with Leibnizian monadology.

In fact, two monads could have nothing in *common*. An

internal element of the monad A and another of the monad B would in every case be *two;* they could never be reduced to rigorous *numerical* unity. Now the *possibility* that one and the same element is contained in the consciousness (sensitive or intellectual) of two subjects is a presupposition essential to cognition. If what Titius apprehends in some way is something exclusively peculiar to Titius, Titius would have no right to assert—nay, not even the possibility of supposing—the existence of another subject. The most rigorous solipsism would be inevitable.

Neither the supposed reciprocal actions among the monads nor the pre-established harmony of Leibniz serve to escape it.

The reciprocal actions do not. For reciprocal actions, among *absolutely* distinct monads, without anything in common, would be impossible. And if we get over this difficulty, an impression which a monad apprehends is in every case a variation *of its own*, and only *of its own*. The variation may be violent, and the monad may refer it necessarily to a cause other than its own will. But in order that I may represent to myself a cause other than my own will as external, not only to my own will, but to my being—in order that the violence I have undergone may authorise me to seek its cause in a being distinct from me—I must have the concept of external and of a being distinct from me. This concept I should not have if the content of my thought could always be reduced to a pure and simple manner of being exclusively my own. A subject, of which there are no constituent elements which, by the manner in which they are his, do not show themselves at the same time as not his exclusively, cannot conceive, much less assert, another than himself. Not to mention the fact that the possibility of referring certain variations of mind to an external cause (a possibility we could not admit) does not constitute the possibility of knowing this cause, or of asserting the existence of another subject.

Nor does the pre-established harmony help us. We need scarcely note that this is far superior to reciprocal actions. Pre-established harmony implies *one* law, a unity which binds together all the monads and eliminates their *absolute* separation. But such a unity is insufficient, if the distinctions which it allows to exist are such as to reduce the consciousness of each

monad to elements exclusively its own—in other words, if the monads have no windows, if their mutual agreement is comparable with the agreement of two clocks, neither of which has anything in common with the other, except in so far as they are both made by the same workmen. The unity must be not extrinsic but intrinsic. It is necessary, not that the monads should be in some way bound together, but that they all should be essential to each, that there should be something which is a constituent of each and common to all.

It is necessary, on the other hand, that the distinction between the one and the other should be conceived in such a way as not to be reducible to an appearance. For there is no meaning in calling "apparent" the irreducible distinction between the individual consciousnesses, between the suffering of Titius and that of Sempronius, between the knowing of Titius and that of Sempronius (I speak of the *knowing*, not of the thing *known*). The knowing of Titius is not the knowing of Sempronius. The think known by Titius is (or may be) the same, and numerically one, with that known by Sempronius, and the knowing does not exist without the thing known. The monads are identified by the one and kept quite distinct by the other. This is the difficulty we have to overcome. Hitherto it has not been overcome, and I flatter myself I have done so substantially with my monadology. This seems to me a happy combination of the Leibnizian and that which I will call the atomistic, adopted by me in my previous essays.

It may be that I have not succeeded in setting forth my doctrine with sufficient clearness, and that some particulars may have to be modified. I will return to it again—my object here has been to make clear the connection and the difference between this and my other writings. For this purpose I think I have said enough.

Some time ago I made profession of positivism. And I have since maintained it, partly from the sense of honour which does not allow us to abandon, in face of the enemy, a banner under which we have ranged ourselves, perhaps without sufficient reflection. But I have always had an extreme objection to questions of words, of which there are too many. I do not wish to add to their numbers for the sake of a punctilio.

"Polemics may have some use, provided they do not keep

to generalities. To oppose one *ism* to another is of little good. Who will class together the idealism of Berkeley with that of Hegel? Or the agnostic positivism of Spencer with that of Ardigo? The value of a doctrine lies in its content and its structure, not in any generic characteristics which it may have in common with a hundred different others. We care for the truth, not for a name to baptize it with.[1]

I called myself positivist, but in what sense? In this: That philosophy can only solve its problems by taking as its base "what is consistent"—ascertained knowledge, science. Exaggerating the value of the natural sciences, I committed an error rather of fact than of principle. The substance of the method called *positivist* by me can be reduced to the admission that philosophy is constructed by means of the theory of knowledge. I am still, and more than ever, of the same opinion. I do not understand how it is possible to be of a different opinion and yet study philosophy.

Therefore I am still a positivist in the sense in which I had declared myself such. But was I right in calling my doctrine positivist from the moment that (execution apart) I had formed that conception of it?

Reflecting that the name of "Positivism" was introduced by Comte, to denote his own radical agnosticism, I should say No. Names count for little, but if we give the same name to things which, by their characteristics, are as distinct as opposites, we shall give rise to dangerous confusions. I remain positivist *in my sense*, but this meaning of mine is not the most commonly accepted one. The writing of my name on the roll of positivists might make people believe that I approve a doctrine which seems to me and always has seemed absurd. Because I wrote it there years ago a little carelessly (though I was not a boy even then), must I leave it there for ever? The punctilio of not appearing a deserter must yield when we recognise that to maintain it would be an offence against sincerity. For one who keeps alive an ambiguity offends against sincerity.

Then I am not a positivist (no longer one, if you prefer it), but am I an idealist?

I say there is nothing *real* that is not *thinkable* (thinkable,

[1] "Le Ultime Induzioni," published by the author in the *Rivista di Filosofia* of G. Marchesini; Padua, 1908, No. 3.

I mean, by *man*). This doctrine can certainly be called *idealism*. There are reasons, not only etymological but historical, for calling it so. Then I am an idealist. But with idealism understood in this way, a non-idealistic philosophy is no longer possible. Besides idealism there only remains agnosticism, and to be an agnostic is not to follow a philosophy—it is to deny the possibility of philosophy. But I am not an idealist in the sense of Berkeley. Nor yet in the sense of Kant, so long as an interpretation of his thought, rejected by him, is not admitted.

According to Kant, man cannot know reality except through space, time, and the categories. I say the same, word for word. But this *cannot* is not interpreted in the same way. It means, according to Kant, an absolutely insuperable limitation of consciousness; it means, according to me (I do not claim to have invented this doctrine), that knowledge has no limitations. Space, time, the categories, says Kant, are constituent elements of things *as we know them*. I say they are constituent elements *of things*. From one point of view the difference is trifling. Space, time, and the categories are for Kant *only* elements of human thought. I suppress the *only*, which seems to me neither justified nor justifiable. But the difference, however slight, implies important consequences. The doctrine of Kant is agnostic or positivist in the sense of Auguste Comte.

To deal thoroughly with the doctrine of Kant, or to discuss the other forms of idealism, would mean to undertake an investigation which, as I have already said, will be the object of a separate work. But it is well known that there are many different doctrines, and that nevertheless they are given, and they receive, the common name of idealistic. To make an indeterminate profession of idealism is therefore like signing a blank cheque, and I have no wish to do so.

I have set forth my doctrine far too concisely. All of life that remains to me, and it cannot be much, will not be too long to develop it, to elucidate it, and to confirm it historically. But I have said enough for others to form an idea of it. Whoever wishes to know it and judge it, must content himself with taking it as it is, without label of any sort.

Among the various and more or less genuine forms of idealism, there is more than one which implies solipsism. And among the different arguments which have been brought for-

ward in defence of idealism there is more than one which, if worked out, would lead logically to solipsism. This was noted by the idealist Hartmann, and had already been perceived by Schopenhauer. The reduction of idealism to solipsism which has been attempted by me in *La Conoscenza* and *Paralipomeni*, where also the observations of Hartmann are summed up, seems to me good on the whole, and I do not contradict it.

I was wrong, however, to speak generically, whereas, to arrive at conclusions which might have a definite epistemological and metaphysical value, it would have been necessary to distinguish. But the wrong was not mine only. The idealists, in the case of arguments which seem likely to embarrass their opponents, or those philosophers who call themselves by other names, are not wont to look too closely. They accept and repeat with satisfaction, even at the cost of attracting stones to their own glass houses. We cannot do without labels, but by their abuse a spirit very like that of sectarianism is easily introduced into philosophy, which ought to be an objective investigation of truth.

If the world is only an aggregate of representations or of sensations, as Mach says, solipsism is inevitable. For, if the words are taken in their true meaning, there are no representations and sensations except those possessed by the individual subjects. Every subject has its own, but it could not admit others, for the others are not representations and sensations for it. And similarly if the world is only an aggregate of thoughts that we think.

Say that the world is an aggregate of sense-perceivables and thinkables, and we shall be in agreement. In this case, however, you will have secured the identity of thought with being. But the doctrine by which you have secured this identity, while it can and ought to be called idealistic in one sense, can and ought also to be called realistic. But I do not dispute about the name. The doctrine which I have formulated is not materialistic or agnostic, but it must not be confounded with that idealism which implies solipsism.

APPENDIX II

THEORY OF KNOWLEDGE

THE knowledge which man has of nature (of observable reality) permits him to propose ends to himself, and, within certain limits, to attain them.

So a problem arises. What is the end to which human activity ought to be directed? The problem cannot be solved by means of the knowledge (vulgar or scientific) of nature. If we know the facts and the laws of the facts, we know how to proportion the means to the ends. But here it is a question of fixing, of discovering, the end which has the highest value, the best or the loftiest. We cannot be content with knowing nature, just because we are adapted to knowing nature.

A problem is set, one of undoubted importance. How do we discuss it? The things that we can know are the observable things—nature. But the knowledge we have of things is not one of those things, nor their aggregate (nature). Yet it is something known that can be studied and mastered. Having constructed the theory of things we must construct a theory of knowledge. And if the problem proposed cannot be solved by the help of a theory of knowledge, it must be intrinsically incapable of solution, as we have seen that the theory of things cannot solve it.[1]

We must (we said) form the theory, not the critique, of knowledge. Let us explain why many have spoken instead of the critique.

The solution of the problem set cannot be given by the science of observable reality. Then it will be given, if given at all, by the science of a reality not observable—of a reality superior to the observable.

[1] I note incidentally that it is nonsense to call the problem insoluble. A supreme end or value exists by the very fact that a thinking being goes in search of it. But its insolubility will either be proved by the theory of knowledge or will remain a profitless assertion.

The idea was bound to arise of opposing to doctrines founded on such a presupposition the prejudiced "But can we attain to knowledge of an unobservable reality?" And it had undoubtedly a notable polemical value. If I prove that man can know nothing of what you claim to know, I have no need to weigh your arguments one by one.

In this idea there was something intrinsically absurd. Knowledge is not an instrument which can be verified like a balance. But there was also something profoundly true.

"Let us see what man is capable of knowing," said the Critics, "and let us cease from all attempts to know more." Bad, in so far as they pretend by means of knowledge to fix insuperable bounds to knowledge. Let us see what man is capable of knowing, and let us be sure there is nothing else, say we, completing the reflection of the Critics, or rather rendering ourselves conscious of its meaning.

When we have made the theory of things and the theory of knowledge, we have made the theory of all that exists, of all that is possible. There remains nothing more to know or to seek. Intelligence cannot go further, not because its strength fails, but because there is no "further." So if one could reach the centre of the earth, he could go down no further, for there is no further down than the centre of the earth.

There are no invisible colours, for colour is only a content of optical sensation. Similarly there are no unknowable beings, because Being is a category. No man sees all the colours or knows all beings, but those colours which he does not see, those beings which he does not know, are as visible or knowable respectively as those which he does see or know.

We have not, and shall certainly never have, a complete theory of things. Can we flatter ourselves that we shall have some day a complete theory of knowledge?

This question brings forward a difficulty which is a condemnation of those philosophies which fail to recognise it, but one which we must not exaggerate. The incompleteness of our theory of things does not exclude our having about things knowledge of universal value absolutely beyond discussion. I know, for instance, that all bodies have extension, that two momentary phases of two facts are either simultaneous or successive.

The theory of knowledge will never be finished. There

will always be room to make important discoveries in it. But its inevitable incompleteness does not exclude our knowing certain propositions as absolutely true and necessary as the two mentioned.

Let us return to the problem of the ends. Those solutions of it which are irreconcilable with epistemological propositions of ascertained value, must certainly be excluded. Conversely, from the epistemological propositions of ascertained value we shall deduce a solution of the problem. It will not be fully determinate, but as far as it goes it will be undoubtedly true, and it will become gradually more determinate with the perfecting of the theory of knowledge.

What this solution is I shall not say. I proposed myself a simple question of method, and in this connection I will add an important observation.

The knowledge the theory of which permits us to solve the problem of the ends cannot be a merely theoretical knowledge. We must take account not only of true assertions but of just valuations, and render explicit to ourselves the reasons of both alike, otherwise, instead of considering knowledge, we shall only be considering an abstract moment of knowledge.

Man knows and acts. He knows in so far as he acts. It is quite right to distinguish theory from practice, but to believe they can exist separately would be a disastrous error.

APPENDIX III

THE LIMITATIONS OF INTELLIGENCE

In reference to the general solution of algebraical equations, Comte writes: "Plus on médite sur ce sujet, plus on est conduit à penser. . . qu'il surpasse réelement la portée effective de notre intelligence. . . . Il y a. . . . lieu de croire que, sans avoir déjà atteint sous ce rapport les bornes imposées par la faible portée de notre intelligence, nous ne tarderions pas à les rencontrer. . ."[1]

We shall understand one another more easily if we speak of roots instead of equations. Let us seek for a number which has 2 for its square. It is not difficult to persuade ourselves that such a number cannot be found. Does the impossibility of finding it prove that its determination surpasses "réelement" the effective capacity of our intelligence? Not at all. Let us suppose that I cannot discover a number, determinate in itself, knowable by me and by anyone else, for instance, the number of persons in the University Buildings at mid-day yesterday; this failure of mine proves the existence of a limitation to *my* cognitive power.

But a number which has 2 for its square does not exist

[1] *Cours de Philosophie positive*, 5th edition; Paris, Schleicher Bros., 1907-8, vol. i. p. 111. To discuss the individual doctrines of Comte to-day would be almost useless. But the fundamental principle seems still to many of intuitive evidence. This persuasion, which radically falsifies the whole idea of philosophy, deserves to be confuted. The principle had already been formulated by Kant (not to go back to Hume, Locke, Des Cartes, Leonardo, and the Greek sceptics). Kant, however, associated with the principle some much more profound reflections, which, when logically developed, led, in contradiction to his opinion, to the abandonment of the principle by which Comte's philosophy, on the other hand, is entirely dominated. The impossibility of solving algebraically equations higher than the fourth degree (an impossibility which has nothing to do with the limitations of intelligence) had been demonstrated by Ruffini (*Teoria Generale di Equazioni*; Bologna, 1799, p. 290). Comte, who wrote in 1830, contented himself with noting in this connection: "L'équazion générale de cinquième degré elle-même a jusqu'ici résisté à toutes les tentatives" (p. 110).

(among integers or fractions). Since it does not exist, it cannot be known. But *its* failure to be knowable is no evidence whatever that *our* intelligence is limited. According to Comte (*op. cit.*, vol. i. p. 3), "Le caractère fondamental de la philosophie positive est de regarder tous les phénomènes comme assujettis à des *lois* naturelles invariables, dont la découverte précise et la réduction au moindre nombre possible sont le but de tous nos efforts, en considérant comme absolument inaccessible et vide de sens pour nous la recherche de ce qu'on appelle les *causes*, soit premières, soit finales."

Good. Admitting that "la recherche de ce qu'on appelle les causes" is "vide de sens pour nous," is there any more sense in the assertion that the same "recherche" is to be considered "comme absolument inaccessible"? The evident impossibility of replying to a meaningless question does not constitute ignorance, but rather, on the contrary, to have made it clear that the question is meaningless constitutes with regard to that argument a knowledge whose absolute truth is beyond cavil. Suppose, for instance, we wish to know the fixed co-ordinates of a point, and we find that the point is in motion. The problem of knowing the fixed co-ordinates cannot be solved. Manifestly it is nonsense. But the knowledge that the problem (as it was set) is nonsense, is knowledge that the point is in a state of motion;—an *absolute* knowledge of this, although its motion may be determinable only in relation to other points, and hence the concept which we form of it may be necessarily relative. It is one thing that a concept should be relative in itself—that is, should be the concept of a relation; it is another thing that the knowledge of it which is justified should not be absolute knowledge, and should be considered surpassable by an intelligence not limited like ours. I say, for instance, that twelve is the double of six. I have expressed a knowledge which is certainly the knowledge of a relation. But it is the absolute knowledge of this relation. Is there anyone capable of maintaining that although "for man" twelve is twice six, it is perhaps not so for a less limited intelligence? Or capable of fancying that such a supposition has a meaning? If there is no sense in speaking of primary and final causes, we must conclude, if we wish to speak sensibly, that primary and final causes are inaccessible to us because they do not exist

and not because we lack the power to attain them. One who says that we can know nothing of first or final causes, meaning by this a defect in human intelligence—of necessity presupposes that the concepts of first cause and of final cause are true. It is to a certain extent a pity, though unimportant, that we cannot see the opposite side of the moon, because this exists and is in itself visible, and its not being visible to us is to be referred to our circumstances, which might be different or can be imagined so. But it would be great folly to lament our inability to see a regular polyhedron with seven vertices, seeing that—"regular polyhedron with seven vertices" is a phrase without a corresponding concept.

Either, then, we know the meaning of first and final causes, and the reason adduced to prove that we can know nothing of these causes vanishes; or else the terms first and final cause have no meaning, and then it is not true that we know nothing of first and final causes, for we know with absolute certainty that the world admits of neither the one nor the other. That is to say, we are in possession of a metaphysic. A metaphysic —a general conception of the universe—the sum of which is to have eliminated from the universe cause and end, will be different from every other,[1] but it is no less a metaphysic than the other.

On the other hand, a doctrine which does not give a true and certain, even though negative, solution of the problems proposed to it by metaphysics—the Great Problems—a doctrine, that is, which is not itself metaphysics—cannot eliminate the religious beliefs, the elimination of which is one of the principal inventions of our philosopher.

Faith is not founded on the presupposition that it is possible by rational means to describe the universe entirely. If it be given, and not merely granted, that such a possibility is excluded once and for ever, the possibility of subjecting faith to a rational critique will be excluded at the same time. The Church does not say, "I show you through arguments that my solutions of the Great Problems are true"[2] but "my solutions

[1] This is not quite true. Remember (*re* final causes) Democritus, "who ascribes the world to chance."

[2] That Christians, and Catholics in particular, have had, and still have, recourse to rational demonstrations is true. There has been a scholastic

were revealed to me supernaturally. I teach them to you, and you will immediately recognise them as true, provided that supernatural grace is not lacking—grace which is a *sine qua non* both of recognising supreme truths and of performing truly good works."

It is sheer simplicity to imagine that an answer is given to this by the assertion (or even by the proof) that it is impossible to know anything by rational means of the things which we are invited to believe. The reason which declares our incompetence thereby leaves the field free and undisputed to faith. In opposition to faith, which presupposes the insufficiency of reason, it is no use to intrench ourselves in a plea of *ignoramus* or, worse still, of *ignorabimus*. To exclude it we must bring forward knowledge to take its place. To give up the purpose of forming a general conception of the universe and of solving the Great Problems means to give up all conscious direction of the course of culture and civilisation, to abandon ourselves to chance in matters of the greatest importance. We must, of course, try to form a true metaphysic, and not limit ourselves to the passive reproduction of this or that metaphysic already constructed. The attempts hitherto made have not been entirely successful. The reason of this non-success can only be one of two:—the intrinsic insolubility of the Great Problems, or a defect in the methods hitherto pursued. We must first of all discuss the method. The insolubility cannot be presumed or inferred from the disagreement of philosophers. This is useless for the purpose. It will be proved, if it is proved, by the discussion of the method. Suppose it is so proved, we must endure it, but in this case let us remember that not even the *Philosophie positive* (of Comte or of anyone else) will give us conscious direction. The human race must either abandon itself to fate, or seek refuge in religion.

Let us discuss the method.

philosophy, and there is a neo-scholastic philosophy. But the philosophy, Christian or Catholic, cannot be absolutely identified with faith, although connected with it. Nor to distinguish them (roughly indeed, but quite surely) is there need of the recent accurate labours of De Wulf and others. Dante writes "Se potuto aveste saper tutto, mestier non era partorir Maria." And the act of faith recited in every petty school of Christian doctrine begins, "I believe, because God has revealed to Holy Church," &c.

Where, in the name of Heaven, are we to find the knowledge which we lack, unless in that which we possess? I mean the knowledge needed to compose the metaphysic. A more extended experience may give us new knowledge of facts or of natural laws, but not inform us whether God does or does not exist. Therefore the only method which *can* lead us to the construction of the metaphysic is reduced to the study of knowledge. This method, moreover, rightly applied, *cannot fail* to lead us to the construction of the metaphysic. In other words, when once we have discovered what cognition necessarily implies, the metaphysical truth is discovered at the same time. In fact, it would be gratuitous to suppose another. Not only assertions but also suppositions must be justified; and by what unless by knowledge or by what knowledge necessarily implies?

In reference to knowledge, we must distinguish "the laws which are valid for all that exists or happens or for determinate classes of things and facts" and "the consciousness which certain subjects, viz. human beings, have of the same laws." Hence arise two problems: "How ought we to conceive reality in order that its being dominated by laws may be comprehensible?" and "How can the consciousness of a subject include laws?" Knowledge must be considered objectively as well as subjectively, with the caution, however, that the known element, whatever it be, must be numerically the same in the object and the subject. In fact, if what I am conscious of is not the thing, there is no sense in saying that I am conscious of the thing or that I know it.

The processes by which the knowledge which a determinate subject possesses is realised or constituted are undoubtedly psychical facts, conscious or partly subconscious, and inseparable from certain physiological processes which take place in the body of the subject itself. We can then admit that "la théorie positive des fonctions . . . intellectuelles" must "désormais consister dans l'étude, à la fois expérimentale et rationelle, des divers phénomènes de sensibilité intérieure propres aux ganglions cérébraux."[1] And consequently we can also admit that the higher animals "manifestent . . . la plus part de nos facultés . . . intellectuelles, avec des simples différences de degré."[2]

[1] *Op. cit.*, vol. iii. p. 404.

[2] *Ibid.*, p. 408.

But with this we have not finished. For then there would be no difference between empirical and rational study. Or rather, the fact that two different subjects see one and the same colour would be impossible, though it is certainly true. A phenomenon "peculiar" to the ganglia of the subject A, and a phenomenon "peculiar" to the ganglia of the subject B, do not constitute the single phenomenon colour, common alike to A and B. And so a single factor of knowledge, which is not sufficient to constitute it, is put in evidence. Nor is this factor conceived with precision. The "observation intérieure" is considered as a "vain principe"; in fact, "la seule supposition . . . de l'homme se regardant penser" would be, according to Comte, "évidemment contradictoire."[1] Now it is true that consciousness is not a thing, and hence cannot, strictly speaking, become an object of itself. But it cannot because it need not. I do not observe myself from outside, but my being conscious consists in my being present to myself. Hence it follows that it is possible for me to know something of my own facts as if, or even better than if, I observed them from outside.

A word or two on the objective factor of knowledge. What does Comte think of space? "Réduite à son acceptation positive, cette conception consiste simplement en ce que, au lieu de considérer l'étendue dans les corps eux-mêmes, nous l'envisageons dans un milieu indéfini . . . Quant à la nature physique (!) de cet *espace* indéfini, nous devons spontanément nous la représenter, pour plus de facilité, comme analogue au milieu effectif dans lequel nous vivons, tellement que si ce milieu était liquide, au lieu d'être gazeux, notre *espace* géométrique serait, sans doute, conçu aussi comme liquide."[2] In fact, we who live in a gaseous medium conceive geometric space as gaseous! It is useless to waste time in criticising the concepts, if we can call them so, which are crowded together in this passage. Let us only note that there is no indication of the necessity of the spatial relations—relations which, a few lines further on, are called "les phénomènes géométriques."

The objective factor is considered as something purely of fact, like a psycho-physical formation. Let us see, for instance, this other passage:—"Les surfaces et les lignes sont . . . . réellement toujours conçues avec trois dimensions; il serait, en

[1] *Op. cit.*, vol. iii. pp. 407–8. [2] *Ibid.*, vol. i.

effet, impossible de se représenter une surface autrement que comme une plaque, etc."[1] Here the confusion between concept and representation is obvious. But if the concept (which is general) is reduced to the representation (which is particular), how will it be possible to know that "tous les phénomènes" are "assujettis à des lois naturelles invariables," among which some are also necessary?

In conclusion, the "philosophie positive,"—if we make abstraction from the value (which we have not yet examined) of the several parts—as a doctrine of the whole, fails to attain its end. It does not attain it because it is not a theory of knowledge, although it includes a noteworthy amount of knowledge ably systematised.

"Pour se livrer à l'observation, notre esprit a besoin d'une théorie quelconque."[2] Let us correct this. In order that knowledge may be deduced from observations, we need the foundation of a theory, not "quelconque," but true. Only there is no need for the theory to be explicitly known. It is sufficient for its foundation to be implicit in the subject, so that the processes observed may be regulated by it. The supposition of beings, essentially unknowable or even only unknowable by us, is nonsense, for Being is a concept, and a concept which we have. Therefore the limits of knowledge, even of *our* knowledge, coincide with the limits of Being—in other words, there is nothing beyond the knowable.

No one man will ever possess all particular possible knowledge. But this is not the point. The important thing is to solve the Great Problems, for we cannot do without this if we wish to gain full and true consciousness, full and true dominion, of ourselves. The true solutions of these problems are those at which we shall arrive by rendering explicit the presupposition necessarily implied in all knowledge. Either we do not possess knowledge of any sort, or we must conclude that, limited as we are, we can attain to an actual knowledge transcending (*intensivé*) every limit. This means, substantially, that we are not so limited as some would have us suppose. Limited as animals, yes! But as reasoning beings?

[1] *Op. cit.*, vol. i. p. 197. [2] *Ibid.*, p. 5.

APPENDIX IV

TRUTH AND KNOWLEDGE

The knowledge of what is included, in so far as it is included in the unity of consciousness of the knowing subject, is certain. "Kann jemand den Gedanken fassen, es wäre nur sein subjektiver Irrtum, dass er sich seiner bewusst zu sein glaube, während er in Wirklichkeit gar kein Bewusstsein hätte? Kann jemand den Gedanken fassen, es wäre nur ein in der Menschennatur liegender Schein, der jeden glauben lasse, sich seiner bewusst zu sein, obgleich ein solches Sichseinerbewusstsein (d. i. ein wirkliches) gar nicht gebe? Was ist hier das Wirkliche? Läugnung und Zweifel schlagen sich selbst, indem sie das Geläugnete oder Bezweifelte durch sich selbst voraussetzen. Möge dieses Sichseinerbewusstsein noch so viel Dunkelheiten und Schwierigkeiten in sich haben, sie können alle zusammen die Thatsächlichkeit desselben nicht zweifelhaft machen. In diesem schlichtesten allbekannten Sinne, den auch jeder denkt, wenn von der Bewusstlosigkeit im Schlafe oder in der Ohnmacht die Rede ist, brauche ich das Wort. Bewusstsein und Ich können promiscue gebraucht werden. In dem Sich-seiner-bewusstsein besteht das Ich. Und Bewusstsein schliesst es seinem Begriffe nach in sich und kann ohne dieses nicht gedacht werden, so wenig wie eine Peripherie ohne mittelpunkt."[1]

This is, in short, Des Cartes' starting point. W. Windelband[2] marvels that Des Cartes' "niemals die Decke von den Abgründen der Täuschung gezogen zu haben scheint, welche in dem, was wir unsere Vorstellung von uns selbst nennen, enthalten sind." There is no doubt that Des Cartes' doctrine, as it was presented by him, needs to be cleared up, supplemented, and corrected; but the quotation from Schuppe brings out

[1] W. Schuppe, *Grdrissd. Erktheor. u. Log.*, Berlin, 1894, p. 16.

[2] *Gesch. d. neurer. Phil.*, 4th. edit., Leipzig, 1907, vol. i. p. 183.

clearly its true kernel, eliminating Windelband's objection (and that of a hundred others). The obscurities and difficulties, or rather the illusions and errors, which start forth when the "*I*" wishes to determine with exactness its own concept of itself as a distinct individual, have no place here. Nor is there any need now to insist on the distinction between the "*I*," properly so called—capable of knowledge in the strict sense—and the animal subject.

Conversely, to know anything, anything whatever, means, on the part of the subject, that that thing is included in the unity of consciousness of the knowing subject. What I am not conscious of is actually unknown to me. It may exercise an influence over me and over my knowledge, but I do not say or think, and I could not *hic et nunc* say or think, anything about it. For my saying and thinking are acts of which there is one consciousness—myself.

To understand this doctrine thoroughly (it is not the simple reproduction of Des Cartes, though derived from it), it is well to examine some objections. "Les philosophes qui s'inspirent de la pensée cartésienne se figurent l'esprit comme une sorte de miroir réceptif . . . Cette façon d'énoncer le problème est vicieuse . . . En premier lieu . . . cette formule supprime la partie principale du problème, celle qui a trait à la certitude des connaissances *idéales* . . . En second lieu . . . (elle) dénature la position du problème . . . dans son application au monde des existences."[1]

Let us begin with real things. To know them "ce n'est pas avoir un concept qui soit la réproduction adéquate de la chose telle qu'elle est . . . : vouloir connaître ainsi la réalité, c'est-à-dire vouloir se représenter les choses *en soi* et *sans aucune assimilation* de la chose à connaître par le connaisseur, c'est vouloir une chose doublement impossible." In fact, (1) "Comment établiriez-vous une comparaison entre une représentation et une chose qui ne vous est pas présente?" (the thing in itself) (2) "Supposez la connaissance aussi parfaite que vous le voudrez, . . . toujours est-il que le *sujet* apportera nécessairement sa nature à l'acte de la connaissance; cet acte participera donc nécessairement de la nature du sujet . . . Vouloir sortir de soi pour prendre les êtres tels qu'ils sont . . . et les connaître sans y

[1] D. Mercier, *Critériol. génér.*, 5th edit., Louvain, 1906, pp. 41–2.

mettre du sien, c'est vouloir les connaître sans être connaissant"[1]

The subject evidently *takes part* in knowledge. But he must form a concept of his *part* which does not exclude knowledge. A resultant, in the production of which the subject and the object concur as two forces, cannot be a knowledge of the object. Suppose oxygen to be capable of knowing, no one will say that the formation of water is a knowledge which oxygen has obtained of hydrogen.

The "nature" of the subject, we say, is to be conscious. In reference to physical reality, to be conscious of it, to perceive it by the senses, means to include a part of it in the unity of one's own consciousness. A part, never the whole (although every part is by its nature capable of being included) because the subject is limited. We must understand that the part included is the same, both as included in the unity of that subject and as not included (for instance as included in the unity of another subject). And, as included, it has become a constituent of the subject. Some of these constituents are essential to the subject, though others are accidental and variable.

The *inclusion* in the unity of a subject of a part of reality (non-essential to the subject) depends on many circumstances. It depends in particular on causal processes which are developed both *outside* the consciousness of the subject and *between* the consciousness of the subject and external reality, and also (when we observe and experiment) *in* the consciousness of the subject. The subject evidently *participates* in the causal processes of the second and third class. In its participating in them or accomplishing them, consists the activity of the sentient subject, an activity which we cannot eliminate in the smallest degree.

But the *result* of that inclusion is that the subject has become conscious precisely of that part of reality. I mean *of that part*, and not of something which is a product of two factors, subjective and objective, in which we could not possibly distinguish how much was due to the one and how much to the others.

"How do you prove this doctrine true?" Mercier will ask. A sufficient answer would be, "On what grounds do you imagine any other?" We see the sky blue. Let us imagine, if we can,

[1] D. Mercier, *Critériol. génér.*, 5th edit., Louvain, 1906, pp. 41–2.

that the sky *is not* blue but only *appears* so to us. We perceive that the world has extension. Let us imagine, if we can, that the world *is not* extended, but only *seems* to be so. We distinguish a horse's four feet. Let us imagine, if we can, that the horse *has not* four feet, but only *seems to us to have* them. And further, let us persuade ourselves that sensations are nothing but illusions. Let us persuade ourselves that we have laid the foundations of a theory of knowledge. Continuing, we shall have to conclude that we have not, but only appear to ourselves to have, feelings, sensations, and *cognitions.* The doctrine which sees a resultant, a product of two factors, in the content of consciousness, is either never valid or always valid.

But I can also answer with another question. What motives have we, in Heaven's name, to suppose an eternal reality other than that which we apprehend? Certainly the oar is not bent, as it might appear. It is impossible to walk under a rainbow, and so on. In other words, if we wish to know, or even simply to escape from a difficulty, we must not go only by what we perceive by our senses at a given instant, we must also help ourselves by what we remember. For reality is not wholly, but only partially, included in our consciousness. Actual sensations keep on including in the subject's consciousness different and disconnected portions of reality. The subject by *its own* efforts must construct a representation of the whole, sufficiently extended and arranged.

The representation of a whole is more or less adequate, according as the experience of the subject is more or less rich and varied, and according to the aptitude of the subject for rearranging its experience. But the subject only rearranges it by following the evidences of real arrangement, included in its consciousness along with the sense-perceivables. The oar, *tested by touch,* is not bent, but *optically* it is bent. In fact, not only do I see it bent, but it is represented bent on a photographic plate. If I think it bent also to the sense of touch, I am in error. I let myself be guided by associations which in this case have no value. I suppose in reality an arrangement which further experience would prove it not to have. With elements of external reality which are not sense-perceivables perceived, no subject has ever had anything to do. Hence there is absolutely no reason to support an external reality consisting of

other than those *same* sense-perceivables which are fragmentarily and in part perceived by us; it cannot exist. And if it could exist, it would be a reality that we could not know.

We come to the "connaissances idéales." These, says the author, "n'ont pas pour objet une réalité existante, . . . mais des *rapports* dont la vérité est indépendante de toute affirmation relative aux existences."[1] And he is evidently right. But these "rapports" are between "existences"; they are valid for actual concrete objects, external or internal. They are not *things*, but they constitute the arrangement of things, and in this sense they belong to reality which *is* arranged. They are therefore objective, and our knowing them is only our reproducing them, as they are, along with our judgments.

Among our judgments some are necessary (and between unnecessary judgments there are some necessary relations). We deduce from this (to use the words of the author, who is not of the same opinion) that "les essences des choses . . . . sont nécessaires, immuables, éternelles."[2] According to the author, the logical arrangement does not correspond "adéquatement" to the ontological arrangement. The adequate correspondence is an ideal which "n'est pas, dans la condition de notre vie terrestre, à la portée de notre intelligence."[3]

This point is of vital importance in philosophy, and must be most diligently discussed.

I do not admit that reality constitutes an exclusively logical ystem; the existence of non-logical elements appears to me incontestable, not only as a matter of fact, but as a logically necessary presupposition of happening. I agree with the author that "on ne peut affirmer simultanément, sans se contredire, l'unité universelle de la nature," in an exclusively logical sense, "et l'évolution."[4]

But in the first place, the fact of the two arrangements, logical and ontological, not rigorously coinciding is not to be referred to the "conditions de notre vie terrestre." It is real and essential, itself logically necessary, or else it does not exist, and we cannot admit it without falling into error. The author himself admits this without perceiving it. To say—We, under such and such conditions, cannot recognise the coincidence, &c., either

[1] *Op. cit.*, pp. 41–2.
[2] *Op. cit.*, p. 225.
[3] *Op. cit.*, p. 227.
[4] *Op. cit.*, p. 362.

means nothing, or it means that the coincidence is real and that *we* do recognise it.

In the second place, the non-coincidence does not disturb the logical arrangement; it realises and presupposes it. The non-logical (not *il*logical) elements, which we must admit, form part of a higher logical unity in which they are included and to which they are subordinate. What is logically absurd (absurd *for us*) is ontologically impossible.

According to the author, however, "Autres sont . . . les caractères des choses, dans leur existence physique, autres ceux qu'elles acquièrent lorsque l'intelligence s'empare d'elles . . ." The intelligence "ne peut étreindre une chose extérieure et la faire sienne, sans lui imprimer la manière d'être de sa propre nature."[1] In these propositions there is an appearance of intuitiveness which may easily lead into error. Certainly "*les objets intelligibles stables* présents à *l'intelligence ne se confondent pas avec les choses*, . . . ils en sont les représentations abstraites,"[2] this is *a* horse, not *the* horse, and its legs are four, not *the* four.

But to believe that our (adequate) concepts are characteristics of things—abstracted, that is separated, by means of an exercise of activity, from that group with which they are really associated, and yet always the same, both in our abstract thinking and in the real groups—is not a confusion between our concepts and things. Conversely, if through fear of confusion we admit that our concepts "participent de la nature du sujet intelligent qui les représente,"[3] we shall have to say that the horse has not four legs, but that I, through my nature, represent it to myself with four legs—that nothing exists, but that I, through my nature, represent to myself something as existing.

Our concepts are in every case "empruntés aux choses d'expérience," but when they are constructed by us, and we put into them something of our own (as when, for instance, one thinks poisonous fungi good to eat), the ontological arrangement and the logical arrangement become different and opposed. If the author's doctrine were true, the same disagreement between the two arrangements would always take place. We shall not therefore run any risk. An error which might have practical

[1] *Op. cit.*, pp. 365–6. [2] *Ibid.*, p. 365. [3] *Ibid.*

consequences will not be inevitable. But can we construct a philosophy? Can we without irrationality believe in a religion?

Moreover, the same question which we have already formulated with regard to sense-percepts meets us again. We attribute certain characteristics to things, we arrange facts according to certain laws. All this, of course, with reference to sense-experience. So we arrive at a logical arrangement of experience. On what ground do you deny that experience, so arranged, is reality? On what ground do you suppose in things other characteristics than those which we attribute to them, and in facts other laws than those which we formulate? The reality which we experience and know is the only one with which we have to do. A reality which transcends experience and cognition is reducible to a dream of yours. We do not confute you, for there is no need. It is for you to prove the existence of a reality whose characteristics are other than our concepts. Prove it, for as yet you have not done so, and do not forget that *existence* and *reality* are words, which are significant in so far as they are expressions of our concepts.

The error which we are opposing has its root in a presupposition. We suppose intelligence and reality to be two different things, each outside the other. Intelligence must then "étreindre une chose extérieure et la faire sienne," which naturally it cannot do "sans lui imprimer la manière d'être de sa propre nature." Knowledge becomes the effect of the reciprocal interference of two things. But if reality were outside intelligence, heterogeneous to intelligence, it would not be knowable, nor could it ever become so. Reality receives the imprint of intelligence, but not in the act of cognition on the part of the individual subject, and not from intelligence *quâ* intelligence of the individual subject. It has it in itself *ab origine, quâ* reality, not *quâ* reality known by the individual subject. A reality, the elements of which, though non-logical in the sense explained in the text, are not logically connected with one another, a reality in which intelligence is not immanent, is an absurdity. And if it could exist, there would be another absurdity in its being known on the part of a subject.

"La vérité d'une chose," says the author elsewhere,[1] "nous (la) faisons consister dans sa conformité avec un type idéal que

[1] *Métaph Génér.*, 4th edit., Louvain, 1905, p. 207.

nous nous sommes formé d'après l'expérience." It is intuitively evident that I must perform a vast and complex labour on elements given by experience in order to have in my explicit consciousness a type, clear and distinct in that way in which there can be consciousness of a type (a way which certainly is not that in which there can be consciousness of a sense-perceivable). But what is the result of this labour which is performed in the distinct unity of my consciousness, and which has for presuppositions elements exclusively mine? Is the type *constructed* by it, or is it only *added* to my explicit consciousness? Michael Angelo the sculptor of Moses, Columbus the discoverer of America, alike perform a personal labour on elements given by experience, and succeed in enriching their respective consciousnesses with new contents. But the new contents are *made* in the first case, and simply *discovered* in the second. Does the labour with which we gain consciousness of a type make or discover it? Since we all can have consciousness of the same type, even though we do not all do so, the answer is not doubtful.

"Qui donc a conscience de contempler, au-dessus des réalités éphémères que les sens perçoivent, un monde d'essences subsistantes, et de se référer à celles-ci pour juger si un produit est pur ou altéré, un homme honnête ou criminel?"[1] Who? Why, all those who judge about the purity of a product or the honesty of a man, knowing what purity and honesty means. To know the meaning of these words is not simply to perceive a reality with the senses.

"A l'encontre des théories idéalistes nous pensons que les idées-types, d'après lesquelles nous jugeons de la verité ontologique, sont abstraites de l'expérience."[2] Certainly they are abstracted from experience. But the man who has deduced them by abstraction possesses them. He has a consciousness of them which differs from that of reality perceived by the senses. Having deduced them by abstraction he has not then made them, he has arrived at them. And an element which is abstracted from experience is capable of being abstracted from it, or is in some way implicit in it. This does not mean that the element exists outside or above experience: it is in experience as a law (in our case as a telcological law).

[1] *Op. cit.*, p. 207. [2] *Ibid.*

"La vérité d'une chose, telle que l'entend la conscience de l'humanité, réside dans la conformité de la chose avec l'idée-type que l'on s'en est faite; elle ne peut donc surgir que dépendamment de cette idée-type et postérieurement à elle."[1]

The words "telle que l'entend," &c., imply a contradiction. They imply, on the one hand, that the truth of which we are speaking is the only one of which we have a concept, as a man cannot have a higher concept than "la conscience de l'humanité." On the other hand, they imply that that *same* truth is not the only one of which we have a concept: otherwise, what is the purpose of the words "telle que l'entend"?

But there is worse than this. Some men form a certain "idée-type" of a thing. Others, elsewhere or at another time, form another. For instance, human sacrifice seems a duty to one, a crime to another. If the truth "réside dans la conformité de la chose avec l'idee-type que l'on s'en est faite," we shall have to say that both are right. And the succession of one "idée-type" to another will be an indifferent varying like the changes of fashion. It will not be in any case an improvement on the contrary. For every valuative (not simply *distinctive*) comparison between two "idée-types" supposes the necessity of an "idée-type" which is true in itself—whose truth, I mean, does not depend on our having made it.

Experience varies. We see that truth which is abstracted from experience can also vary. It might have been the duty of a judge under certain circumstances to have the accused put to the torture. Such a duty exists no longer. But we must distinguish.

Happening implies certain necessary and therefore invariable laws. For instance, the commencements of two facts will always be simultaneous or successive, nothing else being possible. There are therefore necessary truths which man cannot make but only discover. I am not now investigating whether any types of perfection belong to this class of truths.

But happening implies also the varying of some of its laws. Therefore there are also truths which are not necessary, but relative to times, places, and circumstances. Some types of perfection certainly belong to this second class of truths. A lady, for instance, to be well dressed, must be dressed in the

[1] *Op. cit.*, p. 208.

fashion. Man cannot make these truths either, but must be content to discover them.

Whether the truths are of the first or of the second class, the subject deduces them from experience in which they are immanent, by a process of abstraction which, if successful, produces in the subject the explicit consciousness, the knowledge, of a truth which is altogether independent of the particular subject or of any number of subjects, or of all the men that ever have been or will be. And yet it is true that man, in so far as he is capable of modifying to a certain extent the external world and himself, can exercise an influence on *some* truths of the second class. Agriculture and education (to give no other instances) subject to laws, desired and obtained by us, are happenings which without our efforts would have been dominated by somewhat different laws. The activity, whether practical or cognitive, is always one, but exercised in two entirely different ways. My modification of a sheet of paper by writing on it, is not simply a way in which I represent it to myself.

The process whereby man (every man) endeavours to know the truth, whether fixed or variable, independent of or dependent on him, but objective—the process whereby we strive to gain explicit consciousness of the laws, fixed or variable, &c., of happening—this process can succeed or fail, can attain or fail to attain, the end to which it is directed. In every case, when it is ended, it gives a result, opinion. I am pursuaded that, everywhere and always, or under certain conditions, dependent or not on my acts or those of other men, certain laws are valid.

Evidently, it does not follow that the laws are valid from my being persuaded of it. I have made my opinion for myself with my own individual labour; nothing compels things to conform themselves to it. The opinion may be fallacious. Let us note, however, that not even a fallacious opinion is something altogether and in every respect exclusively mine—one of my psychical facts. An error can be discussed, confuted, defended, taught and accepted; it may arise independently in different subjects; it may be spread abroad, and become common also to all men. Error always implies elements of truth. More exactly, whatever there is precise, clear, and explicit in the error is always truth; the error always consists in something which lacks precision, which is obscure and in-

volved; in something which we think we have expressed in words but which the words only indicate. Without the truths which are explicit elements of it, the error would not be possible. The activity which produces the opinion produces it in so far as it is capable of arriving at the truth, in so far as it necessarily arrives at it, provided that it renders itself really explicit. If true opinions were not possible, or, rather, if they did not exist, there would be no false opinions either.

The true opinion is the knowledge of truth, *my* knowledge of course, but of a truth which is mine in so far as it is known by me, in so far as it has been rendered explicit in the unity of my consciousness, which, however, is not made by me, as the paper on which I write is not made by me although I see it. That which I do can be reduced to rendering explicit in myself that objective truth which was at first only implicit in me.

Mercier's doctrine tends to confuse truth with opinion, tends to absolute relativism. As he himself recognises: "Oui, toute vérité est conditionée par la présence, soit dans la nature, soit dans la pensée, des termes entre lesquels surgit un rapport d'identité, d'appartenance, de contradiction."[1] Let us leave nature alone. "Pensée," in the author's opinion, must signify explicit individual thought. For if we take "pensée" in the sense of "thinkable," to speak of terms which may or may not be "present to the thought" is absurd; the thinkable always of necessity contains all its elements. The "vérité" of which he is speaking here is therefore the truth of a proposition stated, even though silently. And it cannot be denied that the truth of a proposition supposes the accidental *fact* that the proposition has been stated. When I hold my tongue, I speak neither truth nor falsehood.

But we are not speaking of truth only in the sense just indicated, and it is not possible to speak of it solely in this sense. I can speak truth and falsehood. Now to speak the truth, I must certainly speak, but I must also formulate between certain concepts a relation which exists between those same concepts. This is objective truth, without which the subjective truth of my judgment would not be even conceivable—objective truth which of necessity is immanent alike in natural things and in the consciousness of the subject capable of knowing.

[1] *Op. cit.*, p. 218.

The error which we are discussing has its root in the doctrine of St. Thomas:[1] "Modus cognoscendi rem aliquam est secundum conditionem cognoscentis, in quo forma recipitur secundum modum ejus."

Of St. Thomas and the scholastics in general, I do not think it right to speak with slight respect. A problem is solved when it is put in an equation. Now it is a fact that the scholastics, and particularly St. Thomas, have powerfully contributed to put the problems of philosophy into equations. I do not refute St. Thomas's doctrine, but I say that the examination of the equation in which he has expressed a problem makes it manifestly necessary to correct the equation itself. This is to make the good seed bear fruit, and not to trample on it.

"Modus cognoscendi est secundum conditionem cognoscentis." The observation is profound, and true provided that we do not give it an interpretation which renders knowledge impossible. Now knowledge requires that "forma cogniti ex necessitate sit in cognoscente eo modo, quod est in cognito."[2] In fact, is it reasonable to say that the form of A (I am speaking of the *form* and not simply of A) is in B according to the form of B? From a vessel in which there is water with a certain form, I pour the water into another different vessel, and in the second vessel the water receives another form. Can we say that the form given to the water in the first vessel has been received in the second vessel according to its form? Certainly not. The new vessel receives the water, but not the old form which is destroyed. Now knowledge consists precisely in receiving a form (metaphor apart, a law). And the form is the same in the knower as in the known, or there is no knowledge at all.

Therefore the "conditio cognoscentis" to which knowledge is subordinate, consists in the possibility that the knower may receive, and become conscious of that *same* form, that same law, or in short that same truth which is form, law, or truth of the thing known. Knower and known so come to be in some way[3] *one and the same thing*. There is no help for it. The

[1] Quoted by Mercier, *Critériol.* p. 44. [2] *Ibid.*

[3] I say *in some way*. Their identity under the aspect we are considering does not exclude but rather presupposes their distinction and diversity under other aspects.

truth which the subject knows is either not truth (and then the subject does not know), or it cannot be such only in the subject. It must be immanent in the things.

Mercier also admits this—or nearly so. "Les choses de la nature, les objets de la pensée, sont rapportables, les uns aux autres, et l'on a raison de dire, pour ce motif, que la vérité réside *fondamentalement* dans les choses; le sujet" of a judgment "*exige* l'attribut qui en vérité lui convient."[1]

But all this must not be taken literally. For "tant qu'une intelligence n'intervient pas pour se rendre présentes les choses, et pour leur appliquer une forme intelligible présupposée, le rapport n'a pas lieu. Faute d'intelligence, il n'y aurait donc point de rapport de vérité."[2]

One who says concept, relation, or law, says intelligence. He indicates, that is, elements that can be understood by a subject, not merely perceived by the senses, Intelligence, in this sense, is immanent in things. Michael Angelo's Pietà *is* in St. Peter's. Its being there does not consist in my saying so. Even the author admits that my judgment is true in so far as it conforms to a requirement of the thing. The intelligence which is immanent in things is therefore itself a constituent of me. The fact of the Pietà being in St. Peter's, which is a relation between real things, is also a knowledge of mine. It is not at all necessary to the intelligence to be a constituent of me. The Pietà was in St. Peter's long before I knew anything of it, long before I existed. It is essential to the intelligence to be immanent in the things.

The problem is of incontestable gravity. And I have no intention whatever of solving it with the strokes of an axe, any more than those who are, by faith, in possession of the true solution. Do not they also seek, like philosophers, a solution the truth of which is settled by reason and which naturally will coincide with that believed through faith, this being true? Therefore "ita quæramus, quasi omnia incerta sint."[3]

To seek with profit, let us lay down clearly what is already settled. It is settled that intelligence is immanent in things, and that this immanence is essential to the things. It is

[1] *Op. cit.*, p. 24. [2] *Ibid.*

[3] Or of any other subject—for what is said of me can be said of every subject.

settled that the unity of consciousness or of self-consciousness, which is realised in each of us, is not essential to the intelligence. The fact that we know the world, and know those mental elements of it which cannot exist outside ourselves as things, only admits of one rational interpretation. That same intelligence, or that same reason, or that same truth, which is immanent in things, is implicit in us, and we can render it explicit to ourselves.

Nothing else for the time being is settled. Hence we cannot accept *sic et simpliciter* St. Thomas's doctrine:[1] "Etiam si intellectus humanus non esset, adhuc res dicerentur veræ in ordine ad intellectum divinum. Sed si uterque intellectus, quod est impossibile, intelligeretur auferri nullo modo veritatis ratio remaneret." The distinction here indicated between the human and divine intellect, and the consequent possibility of the human intellect ceasing to exist are not admissible. There is no divine intellect essentially different from the human. Intellect is divine—that intellect which shines forth in the consciousness of each one of us and is immanent in things. St. Thomas also was substantially of the same opinion. His words imply that there is only one "veritatis ratio" alike for the human intellect as for the divine.

Let us return to the problem. The intellect is immanent in things, but perhaps it is not essential to it to be immanent in things. In that case, and in that case only, will it be essential to it to be associated with *one* consciousness or a constituent of it. Certainly the one consciousness essential to the intellect is not that of any particular subject. It is God.

To show that God exists as a conscious personal being means to show that truth is inseparable from knowledge, that truth and knowledge can be reduced to one. The truth which ought to be identified with knowledge must be *that* which we know and recognise as implicit in things. Conversely, the knowledge which ought to be identified with truth must be distinct from that ever incomplete knowledge which each of us can have of the truth.

The demonstration of the existence of God presupposes logically a distinction between the truth and our knowledge of the truth. It presupposes an objective truth, the same as that

[1] *Cf. op. cit.*, pp. 24–5.

known by us (for our knowing it is only its being rendered explicit in our consciousness) but not constituted by the fact of our knowing it.

To admit that the truth as known by us is constituted by our knowing it, is to reduce the world and our thought to an absurdity. It would render impossible every proof of God's existence, or, rather, would take away all meaning from the question: Does God exist?

APPENDIX V

METAPHYSICS AND MORALITY

THERE are rules of conduct higher than caprice or individual interest. Each man has a knowledge of these rules, and it is sufficient for him to conform himself thereto. He is convinced that so to conform himself, even if it be the cause of serious evils to him, is his duty, and, all considered, is the best he can do.

On the *content* and the *value* of the rules we are all in agreement, because we are all in agreement, as regards essentials, in judging our own conduct and that of others—all of us, whatever be our religious or philosophic convictions, and even if we have no convictions at all on the subject. The aggregate of the said rules constitutes therefore a morality independent of metaphysics.

But the knowledge which even educated persons have of the rules is fragmentary and in great part implicit. Although this does not prevent us from being honourable men, it makes it sometimes harder for us. It is the reason of uncertainties and of various inconveniences, which make themselves manifest when, for instance, we are dealing with the solution of the problems of education or of legislation. Contradictions spring up between one rule and another. These may be only apparent, but are not always easy to eliminate. Controversies arise and perpetuate themselves as to how they ought to be eliminated.

There is only one means of freeing ourselves from the difficulties indicated, and that is to render our knowledge of the rules explicit, complete, rationally connected and ordered, *i.e.* to reduce the chaotic aggregate of rules to a system, to make a science of it—Moral Science. To construct such a science means to solve, in reference to moral notions, that problem which, in reference to spatial notions, is solved by constructing geometry, in reference to the notions of the material world by constructing physics. The construction of a

moral science may be more difficult than the construction of other sciences, but we do not see why it should be impossible.

In the manner indicated, morality as a science is constructed on a basis of moral experience.[1] It clearly results even from the little that has been said that moral science, according to the idea of it that we have expressed, would be no less science than any other (geometry or physics, for instance), and would have, equally with every other, a great theoretical and practical importance.

But, I must add, in spite of this, it would be insufficient. It would not, it could not make us know precisely that thing which, as regards morality, it is most important for us to know.

Human society is now in a certain actual state to which I must adapt myself. But its state changes, and I assist in changing it. I assist in this by my conversation, if not otherwise. In fact, public opinion, the great transforming force of human society, is the resultant of the conversations of each and all of us. I pass over the fact that there is perhaps no one who does not influence the state of fact much more effectively than by his conversation only, by the education of his children, for instance; and that some statesmen and writers, for example, can, under particular circumstances, exercise a singularly powerful influence. The external results of the actions by which I tend to change the state may be negligible. But the direction which I give in this sense to my work, although it matters little in reference to any real change in the state of fact (for what I can do externally is as nothing) matters enormously in reference *to me*. My action, in so far as it assists, however feebly, in changing the state of fact, ought to assist in changing it for the better. So far as concerns myself, I ought to regulate myself as if my action were truly efficacious.

[1] The moral science of which we have spoken is based on moral experience in the same way that geometry is based on spatial experience (on external experience, in so far as it is spatial—making abstraction, that is, from its other characteristics). Naturally an experience, whether moral or spatial, or of any other kind, must be rationally elaborated, if we are to construct a science from it. (*Cf.* my article "L'esperienza morale," in *Riv. Filos.*, Pavia, Nov.-Dec. 1908.) The accusation of blind empiricism is no more justified against those who wish to construct morality as a science (independently of metaphysics) than it would be against geometricians.

Morality ought to tell me how I ought to regulate myself in this sense.

The onesidedness and insufficiency of the scientific morality of which we have spoken are thus rendered manifest. I must adapt myself to the state of fact. That is, the state of fact imposes rules upon me which I must respect even in my attempts (more or less efficacious, more or less conscious) to modify it. But they do not exclude such attempts and do not direct them. To what, then, can we reduce scientific morality? To a recognition of the state of fact, to rendering explicit the rules which express its requirements, to building them into a system. This would be sufficient if I had only to adapt myself to the state of fact. But in adapting myself to it, I also exercise a modifying action which is guided by some rule. On *this* rule, with which I cannot dispense, scientific morality (in so far as truly scientific and founded on moral experience, on the state of fact) makes no pronouncement.

It is easy to recognise that this rule is precisely the highest, the one which implies in itself the essence of morality. I tend to modify the state of fact. Therefore I do not entirely subordinate myself to it. In a certain sense, and within certain limits, I rather subordinate the state of fact to my own ideal. I consider this ideal, which I tend to realise, as better than the state of fact. Therefore I possess a criterion by which I value the state of fact—a criterion higher than that state, and in consequence not deducible from it, not reducible to the expression of the laws which observation makes us recognise as valid in the state of fact.

Physiology studies life as it was and as it actually is, and cannot in any way be reduced to a simple statement. Such a study permits us to climb to the highest laws of life, to comprehend its evolution. Similarly, we say: By studying the present and past state of fact in human society we succeed in making manifest the purpose which is implicit in it—we succeed in discovering the desired higher laws of individual activity.

So be it. But I ask, Are these *higher* laws which are formulated truly the *highest?* Yes or No? Does their discoverer know the *truth—sic et simpliciter*, that is to say, the absolute truth—or only a relative truth, that which we can

humanly know in respect of morality? This is the true knot of the question, and we must untie it before going further.

For the present I am arguing with those philosophers who, desirous "de donner aux principes de la morale la seule certitude scientifique appréciée des idéalistes Kantiens aussi bien que des positivistes," are unwilling "faire dépendre la morale des spéculations transcendantes réservées aux métaphysiciens,"[1] and I maintain that the scientific morality constructed by them is not definite morality; it does not solve the fundamental ethical problem.

Christianity says there are some things of which man cannot have experience as long as he lives in this world, nor with his rational means alone can he obtain certain knowledge of them, but he will have to do with them after death. According as he does or does not do his duty in this world, man will be in the next happy or unhappy, good or bad, for ever. And his duty is precisely to arrange his conduct in this world according to his true end, which lies in the next.

It is quite evident (1) that a man of sense, not a philosopher only, ought to propose to himself and try to solve the problem whether the affirmations of Christianity are true or false; (2) that such a problem is a moral problem, for Christianity formulates a morality, although it implies a metaphysic (every morality necessarily does so); (3) that the problem will be *humanly* insoluble if man (as the relativists say) is capable of knowing *only* those things of which he can have experience. Those relativists therefore who claim to deduce from their doctrine the falsity of Christianity do not know what they are talking about.

To show that relativistic morality is the true one, it is necessary to confute Christianity, which excludes it because it establishes another. To confute Christianity one must *not* begin by asserting that man is capable of knowing only what can be experienced. For this affirmation implies of necessity the existence of *a reality which cannot be experienced*, of which we, furnished as we are with a limited intelligence, could never know anything by *human means*. If we cannot know anything of it by human means, how can we prove by

[1] E. Hugueny, in *Revue d. Sc. Philos et Théol.*, April 1909, p. 226.

human means that we cannot know anything of it by *superhuman means?*

To confute Christianity one must first of all *exclude* the idea that human intelligence is limited, enclosed in a field outside which something exists which of necessity would ever remain inaccessible to that intelligence. One must not say that we can know *only* what can be experienced, but show that *all that exists or happens is reducible to what can be experienced.*

It would then be necessary to show that Christianity is incompatible with the identity of the real with what can be experienced, an identity which then would be beyond question, true and certain unconditionally and absolutely. This second proof will perhaps be less easy than we think, but let us suppose it given. Let us suppose further (although this supposition also is open to discussion) that, Christianity being put away, we concluded from that there was no other morality than the so-called relative morality.

In that case *relative* would have been transformed *eo ipso* into morality with no addition. It would be *the morality*, known and certain, unconditionally true, absolute morality.

A. Fouillée notes excellently:[1]

"Agir comme si la patrie ou l'humanité," or any other ideal whatever, "avaient un droit supérieur à notre intérêt, à notre vie, voilà qui exige un sacrifice. Si, en dernière analyse, ce droit supérieur est imaginaire, nous nous serons attrapés nous-mêmes. . . . Personne ne voudra lâcher . . . la proie pour l'ombre. On ne peut donc se passer de raisons bien fondées dans l'action morale, qui pose le grand problème:—Que vaut la vie, et qu'est-ce qui fait la valeur du vivre, ou, au besoin, du mourir?"

If these words prove anything—none can deny that they prove something—they prove the impossibility of constructing a morality without constructing at the same time a complete philosophy which has a definite character and value. Morality implies the determination of the values of life and death, of man in relation to the whole, and of the whole: it consists in that determination. Now philosophy, in its true and precise meaning, metaphysics, is nothing else. Either metaphysics can solve its problems, or morality cannot solve its either. For the

[1] *Morale des Idées-forces*, Paris, 1908, p. xxx.

problems of metaphysics and the problems of morality are substantially the same. They are the Great Problems.

M. Fouillée, however, is not of the same opinion. As metaphysics is a field of never-ending controversies (and they concern essentials, not secondary points), if morality depended on it, it would have to "se passer de raisons bien fondées," which it cannot admit in any way. And that, on the one hand, seems evident.

On the other hand, there is something else which seems no less evident. Morality, if constructed independently of metaphysics, may or may not be in agreement with metaphysical truth. In the second case it is by no means "bien fondée sous tous les rapports." In the first, it is the integrating principal part of metaphysics. The metaphysical principle and the moral principle, then, coincide; and while we fancied we had *only* constructed a morality, we have at the same time constructed a metaphysic *also*.

"Nous ne savons pas," says M. Fouillée, "si . . . le monde est réellement juste," and conversely we cannot either "affirmer avec certitude que le monde est en opposition avec la moralité."[1] What consequence can be deduced from this ignorance of ours? "Une seule conduite nous est donc permise: agir comme si nous comptions que le triomphe de la bonté morale n'est pas impossible . . . et que . . . il est entre nos mains."[2] Words which fully justify the observation of M. Hugueny:[3] "Le simple rapprochement des premières et des dernières pages du livre montre à l'évidence qui son auteur n'a pas trouvé le fondement qu'il déclarait nécessaire à la moralité."

M. Fouillée goes further still, asserting that "le doute spéculatif sur la valeur objective de l'idéal lui-même, non plus seulement sur la possibilité de son règne, nous semble être une condition de la moralité pratique,"[4] and that "nous agissons *comme si* notre raison pratique commandait avec une valeur objective, non *parce que* notre raison pratique commande avec une valeur pratiquement objective"[5] and lastly, that "la moralité est un effort pour amener à la réalité une idée qui n'est pas encore réelle dans le monde à nous connu, dont la réalisation n'est même pas démontré possible, mais n'est pas

[1] *Op. cit.*, p. 368. [2] *Ibid.* [3] *Loc. cit.*, p. 234.
[4] *Op. cit.*, p. 369. [5] *Ibid.*, p. 371.

non plus démontré impossible. Le devoir est une création de notre pensée, par laquelle nous nous imposons de produire réellement le meilleur en nous et en dehors de nous . . Quelque indémontrable que soit la victoire finale de l'idée dans l'univers, l'homme lutte pour elle, meurt pour elle. N'y eut-il dans l'infinité du temps et de l'espace qu'une seule chance de faire triompher l'universelle bonté, l'homme veut la poursuivre."[1]

M. Hugueny replies justly that "l'idée pratique n'est idée-force que dans la mésure où elle est vraie, c'est-à-dire 'conforme aux lois de la nature,' idée réalisable, distincte de l'utopie irréalisable."[2] In fact, M. Fouillée himself recognises implicitly in the passages quoted that if the realisation of the idea were "demontrée impossible," if there were not even "une seule chance de faire triompher l'universelle bonté," morality would lack foundation, and would be hopelessly vain.[3]

We are still at the same point. The bare and simple *fact* that (hitherto) "we have not shown," &c., proves nothing; we cannot infer anything from it. We must *make certain* at least that what has not hitherto been proved *cannot* be proved, that the "chance" of which we speak *cannot* be eliminated. But how can we do this without constructing a metaphysic?

It is quite true, and M. Fouillée is right in repeating, that morality "exige des principes immanentes," or, in short, must be autonomous. The true and supreme *rule* cannot but coincide with a constituent law of the person. To obey a precept which comes to me from outside, I must have a reason which is known to me—which is therefore not outside my consciousness.

I note in passing that the principle of immanence in morality, as in metaphysics, is by no means so opposed to Christianity as many believe. "La loi morale n'est . . . pas, selon l'idée chrétienne, la législation totalement hétéronome qu'on se figure quelquefois imposée par une volonté complètement étrangère à la nôtre; elle est le dessin *typique* du développement normal appelé par la constitution de notre être. . . . La loi morale à laquelle nous obéissons *est donc à la fois de nous*

[1] *Op. cit.*, p. 383. [2] *Loc. cit.*, p. 236.
[3] The words quoted are M. Fouillée's (*op. cit.*, p. vii).

et de Dieu comme notre être lui-même."[1] Incidentally I call attention to this last passage which I have italicised. What is ours, including our being, is doubtless ours, but at the same time God's also. Man is in God and God is (immanent) in man. Individual being is not conceivable apart from universal being.[2] But let us continue to quote.

"Pas d'anomalie, ni d'hétéronomie absolue dans l'organisation de la vie humaine, mais l'autonomie relative d'un être qui est à lui-même sa providence, sous la grande Providence, dont il dépend en tout et pour tout. L'orientation ainsi donné à notre vie est attrait persuasif bien plus que loi impérative. Nous disons, nous aussi, qu'elle ne devient impérative qu'à raison des résistances qu'elle rencontre dans les inclinations particulières et inférieures de la sensibilité . . . *Lex justo non est posita.*"[3]

In other words, the rule, the precept, can be reduced fundamentally to an intrinsic law. The autonomy is relative in so far as man, although God is immanent in him, is not identical with God. He is a distinct individual in the bosom of God. M. Hugueny will not perhaps accept this inference, nor the doctrine developed in the text, but the difference between him and me (if there is a difference) is not one of those which prevent mutual understanding. I have wished to note this, because it seems to me that the understanding of my doctrine and its right interpretation are facilitated by it. Let us conclude this too long digression by a short note.

M. Fouillée, we said, is right in recurring to the concept of immanence, but this concept must be rightly understood. Here it is impossible to avoid making reference—very brief, of course—to the doctrine of Kant.

According to Kant there are, on the one hand, the "human mind," and on the other the "thing in itself." The *human* mind (the mind which is *only* human) has its forms and its categories, through which alone it can come into relation with the thing in itself. It only knows the thing in itself in so far as it bends it to its own forms and categories, imprinting them upon it, and transforming it into a phenomenon. The phenomenal universe is regulated by human reason—the universe, as

[1] E. Hugueny, *loc. cit.*, 238 *seq.* [2] *Cf.* chapter on Being, *ante.*
[3] *Loc. cit.*, p. 239.

it appears to us, not the universe as it exists "in itself," of which we neither do nor can know anything.

The doctrine taken in this form is invalid. The supposition of a universe "in itself" has no shadow of foundation. Worse, being evidently an application of the category of reality, it is intrinsically contradictory. We must therefore reject it, and recognise that there is no other real universe than the one which *can appear* to us.[1]

Having eliminated the distinction between the "phenomenal" and the "in itself," and reduced the latter to the former, what remains of the "Copernican Revolution"?

There remains the recognition of a truth of such great importance, that it might be called *the* truth.[2] The reason by which the *real* universe is regulated coincides with *human* reason. In other words, we are reasoning beings, capable of knowing things, because that *same* reason which is implicit or immanent in the universe is implicit or immanent in us.

Therefore, the forms of our sense-perception, the categories of our thinking, do not mark limitations to our knowing. Rather, they are means whereby our knowing can transcend any limitations whatsoever. A problem, of which it can be shown that it cannot be solved by us, is a fictitious problem devoid of meaning. And if any one were to ask, for instance, "How many vertices has equality?" the question cannot be answered, because it is a crazy question, not because the answer requires a superhuman intellect. Agnosticism is absurd, and M. Fouillée, not being a contemporary of Kant, is wrong in trying to make use of it to solve the problem of morality.

Hence we conclude, again, the impossibility of separating morality from metaphysics.

In fact, if morality is immanent in us, it is dictated to us by reason, and if that same reason which is in us is also implicit in the universe and dominates it, the discovery (the precise formulation) of the moral law will be a discovery of metaphysics (of a law of the universe). Conversely, supposing

[1] This does not mean that which actually appears to one particular man at a particular time and place. I have never seen America, and perhaps never shall see it, but America is as visible to me as to the Americans.

[2] What part in this discovery belongs to Kant is a historical problem into which we must not enter.

a question of metaphysics to be still unsolved, in the same way and in the same sense, a question of morality will be unsolved. By rendering explicit to us the requirements, theoretical as well as practical, of reason, metaphysics and morality are constructed at the same time.

The problem of rendering the requirements of reason explicit to us is undoubtedly capable of solution, but I do not think that M. Fouillée has solved it.

According to his doctrine, the *principle* of morality is reduced to "l'idée-force de la bonté." Now, we do not deny that this "idée-force" has a moral value, but it is permissible to doubt that it has an *absolute* value. For me "la conception d'un bien qui serait à la fois mon bien et notre bien à tous" [1] is undoubtedly valid. The *normal* man is not what his reason requires him to be unless he is *good*. But *this* requirement and the *normality* of the man are subordinate perhaps to actual circumstances which might be different, to our living in a society, more or less imperfectly arranged, but still arranged.

M. Fouillée does not know "si, en fait, l'univers est capable" [2] of realising that idea. As we have already noted with M. Hugueny, this ignorance, while it lasts, excludes our recognising an absolute value in the same idea. It is in vain to answer "ce dernier problème se pose après non avant." [3] Whether it is set before or after, the uncertainty of its solution leads to an equal uncertainty as to the value of the idea. We said so but a moment ago. Supposing a question of metaphysics is still unsolved, in the same manner and in the same sense a question of morality will also be unsolved.

Realisability is a necessary condition of the value of a practical idea. To have an absolute value, a moral idea must be absolutely realisable, under all circumstances, presupposing only the will of the subject which ought to realise it. "L'idée-force de la bonté" does not satisfy this condition, as M. Fouillée himself confesses. Can we find another "idée" which would satisfy it?

Can we find one, I mean, with *certainty?* That is to say, independently, not of metaphysics,[4] but of questions of meta-

[1] *Op. cit.*, p. 383. [2] *Ibid.* [3] *Ibid.*

[4] This is nonsense, for the finding of the idea is, as we have said again and again, the solution of a metaphysical problem.

physics which are unsolved, disputed, and to be solved no one knows when or how—We have thus rendered M. Fouillée the justice which is his due. Why does he wish to divorce morality from metaphysics? Because a morality which depended on a problematical metaphysic would be likewise problematical, would not be the morality "bien fondée" which is needed. We say the same, but we add that, if in metaphysics there are always disputed questions, there are also points on which there neither is nor can be disagreement among all who are informed of the present state of the investigation. Assuming as fundamental *these* points, and these *only*, we satisfy M. Fouillée's just desire. We satisfy it in another way, but in the only possible way.[1] It is an idea not precisely of goodness, but of coherence and force. This means, in substance, of *absolute* rationality. I do not deny that man ought to be "good" always under any circumstances whatever, *with any one whatever;* but—let us understand each other—I say that we cannot prove it until it is proved that this "idea of goodness" is realisable, until, in short, some hitherto unsolved metaphysical problems are solved. But unless man wishes to contradict that reason of which he is conscious, he ought to value the person—that is to say, the reason—more than all the rest; he ought to subordinate to reason all that is outside it; he ought to organise himself into a firm, organic, and vigorous unity, which ought to be *himself* (an "*I*," not simply an animal)—himself in the full and true meaning of the word. Of this there is no doubt.

Nor is there any doubt that man can, if he will, attain such an end. For the end consists precisely in a certain direction of the will. Let external circumstances and internal psychical conditions be as they will, the important thing is that the will should not subordinate itself to these elements, nor be subdued by them, but should free itself from them, and assert itself in the fullness of its free vigour. In other words, the important, the sufficient, thing is that the will should exist. Naturally, a will which was inefficacious (externally) through its own fault would not be the will under discussion; it would be subordinated and subdued; but an external inefficaciousness which is due to circumstances does not suppress or diminish the act of the will.

[1] We have already found the idea sought for. See the chapter on Values.

This remains intrinsically the same, whether circumstances allow themselves to be modified by it, or not.

The intrinsic, absolute, supreme value of the person—this is the truly fundamental idea of practical philosophy—the *practical principle.*

The supposition that the fundamental idea can be other than this leads, in fact, immediately to an absurdity. You say that man ought to try to realise an idea of goodness. So be it. But, I ask, how will he be able to carry out his attempt if he is not capable of willing, of freeing his activity from every external pressure, by subordinating it to reason alone or by only subordinating it to himself,—of giving expression to it consciously as an end to itself? The possibility of attaining any other end implies necessarily that *this* end is already attained.

There is evil in the world. I am not speaking of the pain imposed upon us by necessity (whether it comes to us from outside or rises within us). Although this also is an evil, and constitutes an obstacle against which the will must struggle, an obstacle which up to a certain point serves as a help to the will, as a point of support, but which can also become insuperable. I am speaking of the pain inflicted on us by the perversity of others.

It is no good worrying our brains over the first origin of perversity. But without doubt the man who suffers from the perversity of another is very easily perverted.

> "La man degli avi insanguinata
> Seminò l'ingiustizia, i padri l'hanno
> Coltivata col sangue, e ormai la terra
> Altra messe non dà."

Only besides and even more than blood, we must speak of filth "teterrima belli Causa." And the worst evil wrought by perversity is precisely the perversion of him who is the object of it.

On the person or will of another a man cannot exercise direct influence; but he can do so indirectly, thanks to the relations of the person with the animal. The will is not bound, but the body is, and in the long run the chains of the body end by weakening, enslaving, and perverting the will. A man perfect by the standard of the practical principle would not be depraved in any case, but where are the perfect men?

We must note, too, that every man begins by being most imperfect, a true brute, however sweet a baby—a brute capable of being educated, but needing to be educated: one which through the circumstances in which it was born, through the circumstances to which its parents were reduced by the acts of others, may be condemned to grow up in misery and abjectness, and under oppression which will pervert it. These are facts to which nothing can be opposed except idle chatter.

How ought man to conduct himself in face of the perversity which assails him?—in face of the powerful enemy who disturbs and hinders his free personal development, who tends to pervert him and to place his children in positions in which they will inevitably be perverted? He must be resigned, but not with a stolid resignation so as not to feel grief and degradation. Resignation is not needed for this—alcohol is better. He must endure and restrain himself, not give way to fits of passion, to useless lamentation, wasting his strength and losing that dignity which can be maintained in spite of the scorn of others. But, at the same time, he must act.

When assailed, a man defends himself, and retaliates if need be. Not madly, of course—not without regard for others and himself, not so as to injure his own cause. The virtue which permits us to keep defence and offence within due limits is called prudence. But it is not our intention to set forth the rules of prudence. The important thing is to make definite the profound state of mind, the final direction of the will, which is imposed by the practical principle, by reason, on the man who reacts against offence.

Christianity says, Love your enemies: do good to them that hate you. This precept, according to the interpretation now accepted and true, does not absolutely forbid us to injure one who wishes to injure us, but forbids us to injure him with hostile intent. Within certain limits I may injure him, but only in self-defence, ever keeping myself friendly to the man with whom I am compelled to fight.

M. Fouillée does not think otherwise. Reason, in his opinion, imposes love upon us, and directs us to realise as far as we can "le règne du suprème et mutuel *amour*."[1]

The supreme law has its root in a divine precept, according

[1] *Op. cit.*, p. 199.

to Christianity; in human reason, according to M. Fouillée. Before an exact interpretation of the divine and of reason the difference vanishes. (We have shown this before, and it results from our whole work.) M. Fouillée is in agreement with Christianity in recognising a supreme value in "l'idée-force de la bonté." Is this doctrine true?

"L'idée-force de la bonté" has a value which no one can or does deny. In general, normally, the relations of a man with other men are, or at least ought to be, tinged with a kindly feeling, much less vivid than that which unites friends or the members of a well-ordered family, but on the whole of the same character.

This law of love is *normally* valid. Is it *always* valid? Even in reference to the *abnormal* relations of man with a perverse enemy who is trying to degrade and pervert him? Christianity and M. Fouillée say Yes. What does their assertion imply? It implies the permanence of values, a thing of which Christianity has given itself a very precise and clear account. The permanence of values and the absolute universality of the law of love are inseparable coessential elements of Christianity. We understand this. If my value remains for ever, my sufferings have only a secondary importance though they be extremely severe and last all my life. Let us understand each other. He who inflicts them on me, and tries to destroy my value, commits an infamous action and destroys his own value. But if I support them with firmness, so as to make them serve to increase and consolidate my value, I convert them into a gain. And I *can* make them serve to such an end, for the end is attainable, and my knowledge that it is so will give me the strength I need. Therefore we have said that sufferings have a secondary importance. A man on his way to take possession of a rich inheritance thinks himself unhappy because in the railway carriage there is someone whose company he dislikes. Such a man is reasonable in comparison with one who is convinced of the permanence of values and yet laments over anything which happens to him in this world.

Not even the most legitimate preoccupations relative to others—to our children, for instance—can make us despair. If values are permanent, there is, then, a universal order which includes values, and *no one* will lose his value except by his

own fault. My children, whom my perverse enemy wishes to pervert in his hatred of me, and whom I cannot defend, will be defended by the universal order—by Providence.

In short, the enemy, in reference to what is truly important, is powerless to hurt me; he only hurts himself. I have, then, no motive to nourish any other feeling towards him than one of compassion. Rather, if my will is truly conformed to the universal order, I cannot but wish and try to the best of my ability that my enemy's will may also be conformed to it. His value will be no less sacred to me than my own. This is as much as to say, I shall love my enemy as myself.

But what if we admit that values are not permanent?

M. Fouillée says: [1] "L'homme prononce pour son compte le *fiat idea* . . . avec l'espoir que la lumière intellectuelle se propagera à l'infini. Quelque indémontrable que soit la victoire finale de l'idée dans l'univers, l'homme lutte pour elle, meurt pour elle." Words which sound well, but have no assignable meaning.

I have said, and I say it again: Suppose values are not permanent, the obligation, reasonableness, and value of goodness are subordinated to the normality of circumstances, a normality which has nothing universal or necessary, on this hypothesis.

This is all but evident. Who pronounces the "fiat idea"? "L'homme," says Fouillée; but the answer is insufficient. Is the "fiat idea" pronounced by "l'homme" in so far as reasonable? In so far, that is, as that same reason, which rules the universe and whose decrees have a necessary fulfilment, becomes explicit and conscious in his consciousness? Or by "l'homme" in so far as endowed with a certain psycho-physiological organisation, in so far as he has had a certain historical development and (in virtue of these circumstances) has created for himself a certain normality of social relations?

In the first case the "fiat idea" is pronounced *by reason* through the mouth of the man. It is a universal absolute law. Man is right, then, to struggle and die for the idea; but, on the other hand, to suppose that "le victoire finale de l'idée dans l'univers" is "indémontrable" is nonsense. In the second case, the "fiat idea" is only pronounced by man as a limited being,

[1] *Op. cit.*, p. 383.

socially organised in a certain way—a way which certainly has a value, but not an absolute value. To pronounce it, man must have been endowed with reason, but this pronouncement of his is not the expression of rational necessity; it is simply the expression of a rule, found convenient in most cases, in normal cases, but without any title to absolute validity. It is like the rules of good manners. They should not be broken without reason, but there may be reasons for breaking them. A night-watchman, for instance, does well to take in his arms a young lady in her night-dress, to save her from a fire. "L'idée-force de la bonté" is certainly more valid than the rules of good manners, but in this second case it has no absolute value even for "l'homme." There may be reasons for rejecting it.

The practical principle is included in the concept of person (one consciousness, explicitly rational), and includes it. It is substantially equivalent to it. It has, then, an absolute value. And nothing can have an absolute practical value unless it is deducible from the practical principle. Morality, as we commonly understand it, is not so deducible unless we admit the permanence of values. Therefore, unless values are permanent, ordinary morality has no absolute value, and the practical principle is (to use a celebrated formula) "beyond good and evil."

Supposing values not to be permanent, it is not impossible, improbable, or rare for a man who always takes for guide the idea of goodness (ordinary morality) to succeed thus in destroying his own value. In these cases (and on this hypothesis) there is only one means of having value, to free oneself from the idea of goodness as from a prejudice.

The enemy cannot bind my will! But he hampers it in a thousand ways, and this is an evil, absolute because without remedy. Once exclude the possibility of my using my will to preserve my value for when I shall be dead, and I could make no other use of it than to fight my enemy *toto corde*, without losing my own balance, of course, but without pity. "Misericordia vulgi," said Cæsar, who did not admit the permanence of values.

The enemy is a madman, since he makes use of reason against my value and thereby destroys his own. He is a brute with certain human characteristics. If I have the power, I

crush him like a loathsome poisonous worm. It is my right and my duty. Personality is the highest right and the highest duty, because the highest value. If violated, it must re-assert itself, and it cannot without turning upon the violator. The radical reaction, which tends to destroy the enemy's value, is an essential element of the reconstitution of the violated person. It is the re-establishment of equilibrium.

One who admits the perpetuity of values, who admits a universal order including the values, who admits God, leaves to God the care of re-establishing the equilibrium. But if my value is not protected and assured by a universal law, it remains for me to defend it with my own strength. Shall I fail?—may be. But not without having inflicted on my vile foe wounds which will give proof, which will give me consciousness of my strength, which will be the ultimate realisation of my value. Human laws forbid me to take justice into my own hands, you say! But I do not go against human laws. You will not claim that I should respect them while they defend the enemy against me and have not defended me from him. In any case I obey them; I will do nothing that they do not allow. But I will make use of the liberty they leave me to make the enemy feel what an immense loss of value he has brought on himself in provoking me.

But every offence I inflict on the personality of another implies a diminution of my own.[1] The offences with which I retaliate for the offences received are no exception. The re-establishment of value which is obtained by retaliation is therefore always imperfect. It is a gain always associated with a loss.

It does not follow from this that we ought not to retaliate. (I am speaking of that retaliation which is punishment; the lawfulness of defence is beyond question.) Always, be it understood, on the supposition that values are not permanent. If values are not permanent, that re-establishment, imperfect as it is, is the *least evil.*

There is nothing to marvel at if the best possible be reduced to the least evil. It would be strange if in a world which by our supposition does not admit the permanence of values, another better were possible. Such a world can only be

[1] See the chapter on Values, towards the end.

inorganic, *ex lege*, and absurd, at least in reference to values. In fact, it produces values in order afterwards to destroy them. It tends by one intrinsic law towards a good which by another of its intrinsic laws is rendered unattainable. If we do not wish to admit the reality of an absurdity—and for my part I am not disposed to admit it—it seems to me that we must conclude that values are permanent. But whether we are to conclude it or not is not the question now. One thing has resulted with even excessive clearness from the foregoing discussion. Those who deny the permanence of values—and those who, without denying it, cannot make up their minds to assert it—cannot in any way maintain that the common moral ideas or "l'idée-force de la bonté" which would be the sum, or the vertex, or the base of them, have a universal value.

The universality and validity of morality cannot be separated from the truth of metaphysics; they imply it, and are implied in it. Morality that is not fictitious, provisory, or illusory is one with metaphysics.

APPENDIX VI

THOUGHT AND REALITY

"THE analytical method, gradually eliminating the complex, must result in a rigorously simple element. Let this element be being, pure and simple, or, if you will, not-being. In fact being excludes not-being, and *vice versâ*, but neither of the two has any meaning except in so far as it excludes the other. Hence we conclude that everything has its opposite. But the two opposites, precisely because the signification of each is only the exclusion of the other, must be given together. Their mutual exclusion is a manner of mutual requirement. Therefore thesis, antithesis, and synthesis are in its three phases the simplest law of things, *relation*."[1]

Let us try to understand clearly.

In the passage referred to, being is affirmed of the *thesis* only, because of the *antithesis* it is affirmed that it is *not-being*, and of the *synthesis* nothing is affirmed at all. But *being* has also undoubtedly a sense in which we can and must predicate it not only of the *thesis*, but of the *antithesis* and *synthesis* also.

The thesis is *being*. Of this *being* we are told that it has an opposite, *not-being*. Are we meant to understand that *being* (the thesis) has no opposite? No, for then "the simplest law of things" would vanish. Since *being* is not without an opposite, we can also say of *not-being*, the opposite of *being*, that it *is*.

We come to the *synthesis*, the *whole*, of which both being and not-being, mutually opposites, are parts.[2] Since being and not-being, thesis and antithesis, have no meaning except in so far as they exclude each other and therefore mutually require

[1] O. Hamelin, *Essai sur les éléments principaux de la représentation*, Paris, 1907, pp. 1-2. I have not translated, but summarised.

[2] *Op. cit.*, p. 2.

each other, they are only given together in the whole of which they are the elements—of the whole also we can evidently say that it *is*.

Let us suppose *thesis* $= E_1$
antithesis $= E_2$
synthesis $= E_3$

where E_1, E_2, E_3 are three determinate forms of one and the same most universal and most indeterminate concept of being, E.

We can also suppose $E_1 = ET$
$E_2 = EA$
$E_3 = ES$

(that *being* which is respectively *thesis*, *antithesis*, and *synthesis*).

The mutual opposition between E_1 and E_2, whereby $E_1 = -E_2$ and $E_2 = -E_1$, must then be referred to the factors (the determinate forms) T and A, not to E. In fact if E necessarily implied an opposite, $-E$, if *being* (even in the most indeterminate sense and therefore in every sense) were only the exclusion of *nothingness*, E_3 would also imply a correlative $-E_3$, say E_4. And then for the same reason that E_1 and E_2 cannot stand without E_3, E_3 and E_4 could not stand without an E_5. E_3, which was *the* (final) synthesis, becomes a *thesis* with the relative antithesis and synthesis.

This is remarkable enough. But there is worse to follow. E_5 always, for the same reason, will imply an antithesis E_6, and a further synthesis E_7, &c. We are involved in an infinite series. As we never arrive at a definitive synthesis and the opposites are only given together, it follows that not even E_1 and E_2 are given in a synthesis which is definitive.

The supposition that the opposite of E_3 is not a *new* nothingness E_4, but the primitive E_2, does not eliminate the infinite series. And it is not admissible. In fact $E_2 = -E_1$ and $E_4 = -E_3$. Either E_2 and E_4 are different, or E_1 and E_3 are identical, and so are all the E's, or there is one E only.

In conclusion, Being (most universal and most indeterminate) *has no opposite*.

It is not enough to eliminate an error; we must substitute knowledge in its place. For this purpose let us try to render quite precise what is essential in regard to the relations between *thought* and *reality*. I extract the following propositions (summarising them) from the work quoted.

(1) "Knowledge is due to an internal labour of the thinking subject. In fact, one who wishes to explain thought by the influence of things must in the end recognise, with Aristotle, that there can be no activity (of the real) without a passivity (of the subject) which adapts itself to it. Knowledge therefore does not introduce into the subject elements extraneous to it. It is a passing into action of the power of the subject."

(2) "Hence, the unknowable can only be the negation of the knowable. If there were a true unknowable, we could not even think of naming it, for we should not have any suspicion of its existence." (I note incidentally that this criticism of the unknowable agrees perfectly with what has been said on the subject in other appendices and in the text of this volume.)

(3) "Knowledge has nevertheless limitations (*cf.* (5) below). Unless we wish to contradict the preceding propositions, we must conclude that knowledge is completed in a certain time, *i.e.* knowledge constitutes a system. Whether we see in thought a reflection of things, or admit that there are no things outside thought, in the one case as in the other we conclude that thought has no limitations beyond those it makes for itself."

(4) "We must not for this reason believe that the system of reality can be constructed without the aid of experience. To discover the rational order of facts (which are connected, not simply put together) time is needed, because time is an element both of things and reason."

(5) "Nor must we believe that any individual system can passably reproduce the system of the world. Science (universal science, philosophy) can, however, be constructed; but the constructions we attempt are only illustrations of the method we propose, and this method itself is only a sketch of the true process. It would be rash or ingenuous to believe oneself capable of remaking the world, even if we possessed all the knowledge acquired up to the present time and had the genius of Aristotle. It remains, however, that knowledge is systematic, and that we can attempt to understand something about the method required by knowledge so conceived." (pp. 8-10).

Let us note.

(*a*) Knowledge consists in thought, and is due to an internal

labour of the thinking subject. Thought, then, and the internal labour of the subject coincide. This labour, by its very nature, has an end, or results in the construction of a system. Knowledge or thought has a limit in so far as it constitutes a system enclosed in itself. The existence of a limit, in the sense assigned, does not imply but rather excludes the existence of any element whatever extraneous to the thought, unattainable by knowledge. Thought has no limits except those it makes for itself—except those which are intrinsic and essential to it as systematic thought.

(*b*) Conversely, the internal labour of the thinking subject can never be completed by any subject. Let a subject possess all the knowledge hitherto acquired, and let him have connected them in a system which seems perfect to him. He will not know everything, and will not have systematised quite completely even all he knows. And the individual differences between man and man, however important, count for little in this respect.[1] "Ein derartiges Streben . . . ist eine Sache der Menschheit, nicht des blossen Individuums; von dem, was der Einzelne dafür vermag, lässt sich kaum gering genug denken." The knowledge or the thought (*of the subject*. We have already said that knowledge or thought is an internal labour of the subject) have therefore a limit, not fixed, in an *external reality* which can never be known or thought entirely.

That we have two irreconcilable concepts about the limitations of knowledge is evident. Knowledge has a limit according to (*a*) because systematic, or because *enclosed* in itself, and *only* in itself, there being no *outside*. It has a limit according to (*b*) precisely because there is an *outside* of which it must make itself master, and of which it can never fully become master. It has a limit in so far as it never encloses itself.

Let us compare thinking with walking. The assertion that reality can be reduced to thought would be translated thus. The road on which I walk exists in so far as I walk on it, it is my walking on it. In this case, however, it is nonsense to say (what we ought nevertheless to say) that, however far I walk, I always find before me a road still untraversed.

Undoubtedly knowledge consists in the "passing of the powers of the subject into action" (see above): "Sollte eine . . .

[1] R. Eucken, *Grundlin. ein. n. Lebensanschg.*, Leipzig, 1907, p. 80.

universale Syntese überhaupt möglich sein . . . wie könnten wir hoffen, zu ihr vorzudringen, wenn sie nicht in der Tiefe unseres Wesens . . . stünde?"[1]

Reason decides finally and without appeal on everything. We reject the absurd as absolutely impossible. This proves that reality is reasonable, that it is thinkable, that it is regulated by the laws of thought.

It proves at the same time that reality is implicit in the subject. The subject knows reality by means of reason. It reconstructs reality (which is thinkable or can be reduced to thinkables) by means of reason. The necessity of experience proves nothing to the contrary (*cf.* above, prop. 4). Now reason *belongs* to the rational subject; it is a *constituent* of it, and *implicit* in it. In so far as reason is implicit in the subject, reality, which can be reduced to thinkables, is implicit in it also. But it does not follow from this that a subject can identify reality with what is thought by it. This would not only be in opposition to the well-known fact of the dependence of each subject on reality; it would also be contradictory. In fact, development is essential to the actual thought of the subject, and development supposes the power of thinking of elements at first not thought of.

Reality is *implicit* in the subject in this sense that it is with the subject in a relation which is essential to the subject. In consequence of this relation, each element of reality *can be* thought explicitly by the subject. But the elements of reality are not *all* (but only in a very small part) thought explicitly by the subject. In this sense reality must be called *external* to the subject—external, that is, to his explicit thought, to his consciousness.

Understood in this way, externality and implicitness do not exclude each other. What the subject does not apprehend is outside the subject in so far as apprehending, although it forms part of a sphere of unconsciousness which is an essential constituent of the subject, which is also a condition of its apprehension. The implicitness stands out in relief, but externality also stands out in relief. To know signifies "etwas, das in uns steckt, zu voller Selbsttätigkeit zu erwecken," but it signifies at the

[1] Eucken, *op. et loc. cit.*

same time so to act that "die Wahrheit der Welt auch unsere Wahrheit werde."[1]

From these considerations we deduce the concept of reality which we have developed in the text, which we can conveniently summarise here.

Reality can be considered as a sphere with the subject for centre. And it is essential to the subject to be such a centre —to be, as Schuppe says, a point of interference. As there is more than one subject, the structure of reality is polycentric. And in reference to each subject reality is divided *doubly* into two parts.

First, the part *peculiar* to the subject and the part *common* to every subject. All that enters the peculiar part, only that subject can apprehend to whom the part itself is peculiar. All that enters into the common part can be apprehended by any subject whatever. The "*can*" in each case excludes *absolute* impossibility, but does not imply possibility *in fact*. Certain facts which I can remember I shall perhaps never remember, because circumstances will not make me remember them. The other side of the moon is visible, but the movements of the moon are such that no man will ever see it.

Secondly, the part which the subject actually apprehends, into which the apprehension, the actual thinking, enters, and the parts which the subject does not actually apprehend. These two parts are not clearly divided; we pass from clear consciousness to unconsciousness by degrees.

In each of these two parts are included elements of each of the two noted above. I am actually conscious alike of elements which are peculiar to me, for instance, of a pain of mind, as of common elements—say of a sound. Many common elements, (of those, I mean, which from their nature can be common), or rather almost all, are outside my consciousness, as also are many elements peculiar to me, so that I do not now remember all that I could remember.

Thought is a somewhat ambiguous term between whose various meanings we must distinguish. It means both the actual *thinking* and the thing thought.

The *thinking* is a *real* fact, *peculiar* to a particular subject, and the subject is always *conscious* of it. (Its position in the

[1] Eucken, *op. et loc. cit.*

double division indicated above is thus determined.) A subject does not always think (Des Cartes held a different opinion, but I cannot say that I think when I am not conscious of doing so), nor does he always think with the same intensity and with the same clearness. Thinking is a variable fact—a fact that cannot exist by itself. We cannot think without thinking *something*.

That which we think, the *thing thought*, can be common to every subject. And it is not essential to it to be thought by a certain subject or by any particular subject. The theorems of geometry and the physical laws are valid whether I know them or not. They were valid even when no man knew them. It is not essentially a *thing thought*, but a *thinkable*. It must be understood that the thinkable when it is thought is the same as when it is not thought. "I think a thinkable" means that my personal consciousness is joined to the thinkable—the thinkable is included in my personal consciousness.

The real, we have said, is thinkable. Now a thinkable ordinarily signifies a *universal*. The real, however, is concrete. And the concrete implies something that is not included in the universal. Otherwise there would not be the universals "concreteness," "singularity of the fact," "variability." But concrete objects have characteristics, with relations between them, and vary according to certain laws. Laws, relations, and characteristics are universal elements of concrete objects—elements without which we could not think the concrete objects or know anything of reality. As to the concrete object as concrete, let us remember that the subject's thinking is also a concrete thing. The subject thinks; it thinks the universal, but its thinking the universal is a concrete fact. Hence it follows that in the consciousness of the subject the concrete object (the living reality of the subject) and the universal constitute a whole which is truly one. Therefore the subject thinks, not a simple abstraction, but reality—reality in which, though not exactly in the same way, the concrete object and the universal constitute a whole which is truly one.

With regard to concrete objects, a sentence of M. Hamelin's should be noted. It follows proposition 4 quoted above. "Experimental knowledge has a field of its own if there is contingency in the world." That there is contingency (that it

exists *necessarily*, supposing Being to have concrete objects for its sole determination) we seem to have proved in the text. A world in which *all* was necessary would be out of time, as geometry is out of time—*facts would not occur in it.* Not that every fact is contingent. Facts happen in a whole which is rationally one—in which, that is, the parts are essentially interconnected. This relation implies the impossibility of facts happening independently of each other. Each fact is rendered by the others different from what it would have been without them. Therefore in part facts mutually determine each other. There is a determinate happening, logically deducible from already existing happening. But if there were no absolute commencements there would be no already existing happening. If there were no contingency, there would be no determinism of happening either. Only timeless logicality would remain.

Absolute commencement (variations which cannot be deduced entirely from others) are alogical but not illogical. And the subject has consciousness of them, as it is itself a principle of absolute beginnings. It has consciousness of them as a thinker, because its thinking is inseparable from the expression of its spontaneity, being rather the consciousness that the spontaneity obtains of itself by expressing itself. Hence the necessity of admitting contingency does not exclude the thinkability of the real any more than the necessity implied in it of recurring to experience, or at least to that internal experience in which thinking consists.

Taking into account these considerations, from which it results how and in what sense particular things are thinkable, we must say that reality is composed of thinkables alone. Conversely, thinkables are *really* thinkable, or there are no thinkables which are not elements of reality in some way. We are not, however, to believe that thinkables are all of one sort and have all the same importance. We will abstract from particular objects.

There are thinkables which the subject *finds* or *discovers*, but does not construct. He draws them from himself, but only in so far as reality is wholly implicit in the subject. These thinkables are independent of the existence of subjects, except in so far as subjects or embryos of subjects (centres of interference and spontaneity, monads) are essential to reality.

They can be subdivided into two sub-classes. Some are absolutely universal, and therefore also necessary, non-negligible laws of every happening, and hence of our thinking also. If we succeed in rendering some of these thinkables explicit to ourselves, not mingling others with them, we have in this all that is needed to trace some fundamental lines, few but secure, of a philosophy. New discoveries in this field will permit us to add new lines to our design, to form a gradually less inadequate concept of the world considered in its unity. The concept will never be fully adequate, but one of its elements once discovered is discovered once and for all. We can go forward indefinitely, but if we have not equivocated on the nature of the elements discovered, we shall never be compelled to turn back and begin afresh.

Others are transitory characteristics of a part of reality, especially of that which touches us most nearly, or it is not clear that they are anything else: for instance, the configuration of the solar system. Their discovery has no *essential* philosophical importance. It may contribute to philosophy efficaciously but indirectly, in so far as it constitutes an increase of culture. It is an affair of *science* in the usual sense of the word. On these thinkables we need not delay now.

But there are also strictly *human* thinkables. They are so called, not because it is essential to them to be actually thought by any man, for this is not true; nor because they are thinkable by man, implicit in man, for there are no thinkables which lack this property; but because they are *constructions*, real or possible, of human thinking. And they would be reduced to nothing if there were no men, or, more generally, if there were no subjects capable, like man, of discursive thinking, of a knowledge always limited in quantity and always increasable, if there were no single units of conscious activity in which reality, which is implicit in them, succeeds in time, by means of the activity which it is constantly expressing in rendering itself conscious.

Constructions of human thinking, we said. Perhaps a few words of explanation will do no harm. One who thinks is always *a* man, not *the* man. Each one is a distinct spontaneity and has a purposefulness of his own. Hence the construction of one will be different from that of another. But the differences

(between men, and hence between the respective constructions) do not exclude similarities. All men of the same race, who live in the same environment, who have had the same history, and (more or less) the same education, will make very similar constructions, in spite of inevitable individual varieties. For instance, they will all speak the same language.

And men, whatever be their races, environment, history and education, have more points of resemblance than of difference. They all have the same physiological organisation (they can all reproduce themselves), and hence also the same physical structure, and they all live on the same planet. Therefore their constructions, in spite of the differences (of individuals, race, &c.), present a common basis,- which is far the most important part of each. This is what *human thinking* consists in.

The constructions of which we speak—the "man-made formulas" of William James, who has the fault of not recognising other forms of knowledge—are not always *new* thinkables. They are sometimes thinkables of the first class already indicated, of which, however, a new use is made, determined by the wish and by the more or less well founded hope of attaining in such a way a certain cognitive end.

For instance, the maritime horizon is said to be a circle having the observer for centre. But who can be certain of this? Observation has given us an image; we ought to discover the *true* concept to which to subordinate it. This not being known, we substitute for it another, chosen from among those which we possess. The choice is not made at random, it is *suggested* to us (the maritime horizon *seems* circular); but we cannot *prove* that the choice is good—it is a voluntary choice. Similarity, the circularity of the maritime horizon which has resulted to us (up to a certain point, as we have said) from all the observations *made*, is *assumed* for all the observations *makable*, and this also is always a constructing in the same way.

Combining the two aforesaid observations with a little geometry, we conclude that the earth must be a sphere. But is it really a sphere? Yes, granted that *all* the maritime horizons are *truly* circular.

But there are thought-processes which present even more clearly the character of true constructions. Their elements are

discovered indeed, but they are combined *by us*, and by us only, and not at random, nor without purpose, but because we have willed to combine them. Let the classes of the naturalists, the Pythagorean tables, logarithms, &c., serve as examples. Thinkables are thus obtained which are themselves certainly elements of reality, but of that reality which is our effective thinking, the principal labour performed by us to attain to knowledge. If they are also essential to thinking or to human thinking (of which, at least in some cases, it is permissible to doubt), in any way they are not essential to the thinkable. They serve the purpose for which they are constructed, and a doctrine of human thinking must take considerable account of them.

But the doctrine of the real (of the thinkable) considered in its unity, the doctrine of the laws, attached invariably to happening by the intrinsic organisation of being—philosophy—could not be founded on them, although it may make use of them as a secondary aid: as what is there from which philosophy cannot draw profit?

Above all, we must take care not to attribute to any of these "man-made formulas" the value of those absolutely universal and necessary thinkables which constitute the true and only field of philosophy. We should be going altogether astray. For we should come to take for *necessity* what is merely *habit*, even though it be a habit from which man cannot free himself without giving up thinking, as, for instance, the habit of speech.

Being and not-being are two thinkables. This is almost intuitive. In any case let us add a word or two of explanation. *A being* signifies, as the case may be, a concrete object, or a characteristic of a concrete object, or a relation, or a law—an object, in short, determined with greater or less precision, among the elements which are thought, or which are capable of being thought—a thinkable. *Being* signifies *the* characteristic common to all thinkables without exception, or that by means of which thinkables are not broken up into a mass of elements absolutely external to each other.

Here we must note that such an absolute externality is not thinkable. In fact, the elements which we might wish to suppose external are, notwithstanding all, called *elements* or *beings*. The common characteristic is implicit in the very formula with which we fancy we exclude it. *Being is necessary.*

But *not-being* is also a thinkable. In fact, to say *nothing* —knowing what we are saying, *i.e. thinking*—is not the same as not to say anything. When we say, for instance, "In this box there is nothing," we say and think *something*, a thinkable.

We have recognised that we cannot reasonably speak of an *unthinkable reality*, that *reality* is composed *only* of *thinkables*, and thinkables are all elements of reality. Since being and not-being are alike thinkables, it seems impossible to deny that reality is composed of being and not-being—*only* of being and not-being. In fact between being and not-being there is contradictory opposition: what is not being is not-being, and what is not not-being is being.

The conception at which we thus arrive (it is of venerable antiquity) has one fault, that of not distinguishing between the *human* thinkables and the others. Let us explain ourselves if it is still needful. The thinkables are *human*, without exception, in this sense that, when we say thinkable, we mean thinkables also by man. There are, however, *solely human* thinkables, and others which though *also* human (as we have said), are not *solely* human. There are *factitious* thinkables, "man-made formulas" and *universal necessary* thinkables, let us say *non-factitious*. (On the non-factitious thinkables, those not man-made, and yet neither necessary nor absolutely universal—we noted before that there are some—we must not delay.)

Being is a universal necessary thinkable, non-factitious. *Not-being*, on the other hand, is a solely human thinkable, factitious. Not-being either signifies the negation of being, or has no meaning. Negation, we said, but, let us clearly understand each other—the human fact of negation. For both negation and affirmation are facts which presuppose a man, a knowing subject. Of these facts there are also concepts, but these are the concepts and characteristics of the facts, and nothing else. Being is not the affirmation or the concept of the affirmation, but *that* which is affirmed. The *thinkable* is a condition of its affirmation, and renders it possible, and is a condition likewise of its negation.

Being, as a non-factitious thinkable, is necessarily concluded both from the affirmation and the negation. To claim that from the negation we can infer a non-factitious not-being is to equivocate. For the negation of being is not its suppression.

Neither therefore is it full or absolute, not even as a negation. Who has ever dreamed of absolutely denying being or of excluding it altogether from any order of thinkables? These are words to which it is impossible to attribute any meaning.

I say "In this box there is nothing."—*i.e.* while I expected to find a body, visible tangible, &c., I have been deluded. But in the box there is space, if nothing else. Still my delusion, my very negation, is certainly something. I see my friend in a brown study, and I ask him "What are you thinking of?" He starts, and answers "Nothing." His consciousness was empty like the box, and in the same sense. Not that there was included in it the thinkable not-being, but there was not included in it one of those thinkables which can be expressed. My friend was not thinking. And he who thinks (as I, the writer, do at this moment) that factitious thinkable which is the meaning of not-being, thinks a thinkable—that is to say, a being.

The not-being, of which we may speak knowing what we say, is a thinkable or a being. Therefore it is not the opposite of the indeterminate being. With not-being we exclude, not being, but some determinate form of being. The lack of one determinate form always implies the reality of another determinate form. Empty space is occupiable.

Indeterminate being has no opposite. The subject is a being, but particular. It implies reality in itself, but only succeeds in rendering it explicit to itself by successive steps and partially. Therefore the subject denies, while being has only positive determinations.

The subject contradicts itself also, but its self-contradiction is a consequence of its not being fully conscious of itself and of its relations with the universal being. This does not admit of contradiction, but only of contrasts (*i.e.* a partial mutual determination) between the spontaneities which it includes—contrasts which in the individual incomplete consciousness of the spontaneous activities take for the moment the form of contradiction.

The "simplest law of things" is not reducible therefore to the trinomial thesis, antithesis, and synthesis. The true law lies in the intrinsic requirement that being cannot be indeterminate. It is also simpler, and hence, in compensation, less rich in content, but the greater richness of the other formula is illusory.

In having put in evidence what can truly be called "the simplest law of things" we must not fancy we have done anything great. We have made a first step, or, more exactly, we have indicated the value of a first step which another[1] had already made. Nothing more, but (and we must not forget it) nothing less.

[1] This step was made by Rosmini. With this writer I shall mention here with gratitude two others, Bonatelli and Maschi, each of whom will certainly have recognised his influence on my thought. Why I limit myself to such fugitive and incomplete mention, I have already stated in Appendix I.

APPENDIX VII

IMMANENCE AND TRANSCENDENCE

Two bodies, *e.g.* two billiard balls, move independently of each other. It happens that they collide. In consequence of the impact the two motions will be modified. But the modification is due to a cause which is accidental and external with respect to each of the two bodies under consideration. Generalising, we succeed in conceiving the universe as an aggregate of elements, devoid of essential mutual relations and only connected accidentally by actions which are exercised on each *ab extra* by the other.

This conception, called mechanical because suggested by a superficial consideration of the mechanical facts, is irreconcilable with the purposefulness of life and with the rationality of the physical laws. The distinct things into which the world is reduced are constituted in a system, in a *whole* which is truly one, by a principle of activity which is rational, and at least up to a certain point teleological.

The principle is divine. In other words, all that we recognise as true, beautiful, and good, all that we admire without and which ennobles us within, is due to the said principle. Without it the world would be reduced to a valueless chaos, or rather would not exist. The false, the ugly, the evil, in so far as they are not essential to the harmony of the whole, are due to the distinct individual activities, each of which, though subordinated to the principle, is yet to a certain extent independent in its own limited sphere.

The principle is, on the other hand, intrinsic in the world. To recognise this principle is, in fact, to recognise that the world cannot be conceived mechanically or chaotically. It is to recognise the world as arranged—to recognise, that is, that in the world there is an order. Consequently the divine is intrinsic in the world—God is immanent in the world.

According to a doctrine which is traditional in Christianity,

and which has never been abandoned by the Catholic Church, there exists, besides the sensible world, a personal God, who created the world in time, and who is *absolutely* distinct from it. It is the doctrine of transcendence. The world exists by the divine will, and hence cannot be separated from God. But the divine will by which the earth exists is free. God had the power of leaving the world uncreated; He could also destroy it. The existence of the world is, then, by no means essential to the existence of God; the existence of God does not imply that of the world, and cannot be reduced to it. In this sense God is transcendent with respect to the world—He is distinct from it. And in the same sense He is transcendent with respect to us. The aptitude for knowing, with which we are endowed, is also itself created as the world is created. It does not consist in there being included in the distinct consciousness of each one of us a (rational) element which is numerically the same both in each of us and in God.

Can the doctrine of transcendence (and hence the religion which is inseparable from it) still be defended when once it is recognised, as it cannot fail to be recognised, that order and rationality are immanent in the world? Many think not, but the new scholastics say Yes, and maintain it with arguments which in substance had already been put forward by the ancient scholastics, but which by the new are applied with undeniable learning and acumen to the present conditions of the controversy.

Let us examine these arguments briefly, without prejudice and with the sole end of acquiring clear concepts on the subject. "Verum invenire volumus, non tanquam adversarium aliquem convincere; ergo ita quæramus, quasi omnia incerta sint."[1]

Whence comes that principle of ordered activity which we have recognised as intrinsic in the world? "Ici, il faut répondre: l'agnostieisme ne peut éternellement abriter son silence systématique dans le mystère des causes"[2] It is quite true that agnostics have not the slightest right to attack

[1] I have made a mixture of Cicero and St. Augustine which seems to express my purpose clearly. If any one has not understood me, or if any one will not, I must have patience.

[2] Ed. Thamiry, *Les deux Aspects l'Immanence*, Paris, 1908, p. xii; pp. v–xx contain a prefatory letter by Mgr. Baunard.

religion in the name of their doctrine (to say nothing of its absurdity).

Let the impossibility of conceiving the beginning of happening, about which we will say more presently, be considered proved. As it is admitted that all that exists is essentially conceivable, we can deduce the impossibility of happening ever having begun. The beginning, if there had been one, would be conceivable.

But on the agnostic hypothesis, that impossibility would only represent an incapacity of ours. And if we are not capable of knowing or understanding, we ought to keep our mouths shut, and neither assert nor deny. An envelope left by so and so when dying is burnt before being opened. We cannot know if it contained a will. But have we any right to infer from this impossibility that it did not contain one?

But to continue. The monistic hypothesis of immanence is not satisfactory, either. In fact (1) "elle conduit à l'impossible conception d'un monde que se serait fait lui-même, et qui en définitive serait un effet sans cause."[1] (2) Moreover, it implies a *petitio principii:* to refer, in order to explain how the world has it causes in itself, "à l'hypothèse d'un dynamisme immanent,"[2] is to explain *idem per idem.*

The objections referred to have a problematic value. The Immanentist says: The cause of the present facts is in past facts, and so *ad infinitum.* This is not to identify the cause with the effect, or to suppose an effect without a cause. It is to admit that the same chain of facts, which we see taking place now, has *always* taken place. In this doctrine the universe as a whole has no cause. But it is not considered as an effect either. The opposed *petitio principii* is illusory. Rational necessity, recognised by all (even the theists) as implicit in happening, neither requires nor admits of "explanation." The immanentist, recognising it as implicit in the universe, formulates no hypothesis. That of the theists, on the other hand, is the hypothesis which needs proof.

Much more serious is the objection formulated by Renouvier. Immanentism implies an infinity of past facts. But unless we are content to admit with Renouvier that God has Himself had a beginning, the same difficulty will be presented in another

[1] *Op. cit.*, p. ix. [2] *Op. cit.*, p. xii.

form. I do not represent to myself the divine eternity, but I am far from believing it therefore absurd. But if at a certain period (*n* years ago) happening begins and hence time also, I can no longer understand how that point can possibly not mark a before and an after in the divine existence also, which so becomes conceived according to the category of time. In short, time which has a beginning is a contradictory formula. The contradiction, being intrinsic, does not vanish even if we suppose the category of time not applicable to God. (Besides, do we not apply it to Him when we say that God has created in time?) And we pass over the difficulties, to which we shall refer later, which arise from supposing anything outside the categories.

The principle of ordered activity, immanent or intrinsic in the world, is *reason*—say the Immanentists or Monists or Pantheists—and therefore it is nonsense for us to give a reason for it. As the theists do not admit that we should ask a reason for the existence of God—"Deus ultima ratio rerum"—they ought to show that what was true of God was not true of the said principle. This they have not done.

Passing over this difficulty, and admitting that we ought to give a reason for the principle, I recognise that it is impossible to do so in any other way "qu'en superposant à la série de toutes les causes secondes une cause première; cause transcendente, souveraine, intelligente et libre."

"Nous étendrons . . . à la nature cette primordiale et constante vertu de l'immanence, mais de l'immanence reçue, que nous appellerons immanence relative, réservant le nom d'immanence absolue à l'unique et éternelle source de la vie universelle, qui est le sein de Dieu. Telle est la distinction fondamentale, où git la solution de la capitale question à laquelle sont suspendues nos croyances comme nos destinées."[1]

Let us not argue too subtly on the distinction between the two immanences, where Mgr. Baunard does not seem to me to give the author's thought. Contrary to the pantheists, who do not admit any God except the principle recorded as immanent in the world, the author maintains that the principle is certainly immanent in the world, but that this principle is not God, and

[1] *Op. cit.*, p. 181.

is, instead, a divine creation. The doctrine (lacking the preliminary proof of which we have made mention) is hypothetical, but in the order of physical nature it represents a hypothesis which might be accepted. Let us see if the same can be said in reference to the human mind.

The author considers Rosmini's doctrine that "*l'intuition de l'être* . . . nous revèle l'existence *en nous* d'un élément *divin* au sens propre de ce mot" a proof "d'orgueil intellectuel."[1] We need not notice the pride and the other abusive words. We are here trying to understand something of a difficult problem. We may make mistakes. Even he who writes to maintain the Church's doctrine may err (Rosmini himself would be an example), and the error may be due to the fault of the man who commits it, but no equally fallible man has a right to blame him for it.

Let us come to the true knot of the question. I know a reality distinct from myself. Under what condition do I know it?

I know that of which I am conscious, that which is included in the unity of my consciousness. And a thing which I know is by that very fact included in the unity of my consciousness—I am conscious of it. The words with which it is wished to express a different doctrine have not and cannot have a meaning. There are a subject S and a thing X. (For the present argument it matters not whether X is real or mental.) Suppose S has no consciousness of X, but has of an element A different from X, then S does not know X but only knows A. Will you say that, thanks to the relation between X and A, S, knowing A, can attain somehow to knowing X? No doubt; but if S somehow succeeds in knowing X, X will be somehow in S's consciousness, and it will not be true that only A is there.

Let us not equivocate. That by making use of one piece of knowledge I may gain another is true. But this does not mean that my knowledge of one thing constitutes my knowledge of another thing. I see the façade of a building, and I conclude that the building is a church. From the knowledge of one characteristic I have inferred the knowledge of some other characteristic. This other characteristic, although not sensibly perceived, is also in my consciousness just as the perceived

[1] *Op. cit.*, p. 181.

characteristic is. Otherwise I should not know that that is the façade of a church.[1]

Hence, either a divine element succeeds in including itself in the subject's consciousness, so that the element as it is in the subject's consciousness is "divin au sens propre de ce mot," numerically one, both in God and in the consciousness of that particular subject, or else that particular subject will know nothing of God.

I do not wish to defend here Rosmini's intuitionism. I admit, without inquiring if it be true, that man attains to God by means of the creatures.

What is the meaning of attaining to God by means of the creatures, except the discovery of God in the creatures? Now I ask—Can a thing be discovered where it is not? If God is discovered in the creatures, then He will be implicit in the creatures, He will be immanent in the universe. The principle of order immanent (according to the author) in the universe is God. And if, after that, such a principle is not "*divin* au sens propre de ce mot," God is nothing but an arbitrary hypothesis.

Tell me that the divine, recognised by us in the world, implies by its intrinsic necessity a complement, which is not and cannot be contained in the world, and we can understand each other. God is immanent in the world, but not *only* so. The proposition has a meaning, and may be true.

So, for instance, Titius, with whom I am speaking, is doubtless *in me*. In fact, his outward form, his colour, the sound of his words and their meaning (that is, Titius's thought) are included in my consciousness. These elements of Titius, which are in me, are and could not help being supplemented by others which are not in me (by feelings, for instance), with which they form a unity of consciousness. But if the elements, which I named first, which are included in my consciousness, were not Titius's —were not *the same* in Titius and in me—the existence of those other elements and of Titius himself would be arbitrary hypotheses.

Besides being immanent in the world (and hence also in me as part of the world) as a principle of order, God is immanent in me as a principle of knowledge. That there is a principle of

[1] See further, Appendix IV.

knowledge immanent in me, and that it is identical with the principle of order immanent in the world, is undeniable. I am capable of knowing necessary *a priori* principles which have the value of laws for reality. The principle of knowledge, they say, is created; it is not "divin au sens propre de ce mot." Therefore God could have left it uncreated or created it otherwise (as Des Cartes believed); or else knowledge, which is based on that principle, is only hypothetically or relatively necessary—has no true necessity. Man has not *in himself* a principle of necessary truth. How will it be possible for him, then, to arrive at *necessarily true* conclusions? How will he be able by means of that principle to rise to God?

The hypothesis that God exists, that He has created distinct human souls, and that to illumine these souls, He has created a principle of knowledge common to all (of the common nature of the principle there can be no doubt) is perhaps intelligible. But I make no question of its intelligibility. I ask, "How do you know the hypothesis is true?" If the principle is not "*divin* au sens propre de ce mot," and the immanence of the principle in us is not the immanence of God in us, we shall never arrive at God except by a paralogism.

The identity pointed out between the two principles, of order and cognition, respectively immanent in the world and in us—joined with the hypothesis that they are created, or with the express recognition of their being devoid of intrinsic and absolute necessity, renders the doctrine of pure empiricism absolutely irrefutable, viz. that the world is a jumble of facts, and that our cognition is an impression which the facts produce on us; it renders atheism irrefutable.

All that we know, we know by means of the categories. The categories are evidently *ours*, for we use them and predicate them. A cognition which does not imply them is impossible to us. We want to know whether they are ours *only*, and in particular, here, whether they are created or (which in substance comes to the same thing) are simple expressions or forms of the activity of a created spirit *qua* created.

God exists. To be true, this proposition must have a meaning. And what meaning can it have *for us who pronounce it* except the application to God of that same category of existence that we apply in every other case?

A colour, a stone, a rose, a butterfly, and I do not exist in the same way, but we exist—just as, for instance, a segment, a surface, and a volume are not extended in the same way, but are extended (spatially).

To exist, said of the colour and of me, has different meanings, which have, however, something in common. Said of God, it will have a different meaning, but this other meaning, though *infinitely other*, must, so far as existence is concerned, imply the identical element which is common to the preceding.

To suppose something outside every category, outside even that of existence, is to suppose something absolutely unknowable (or rather unthinkable, which is nonsense, for supposing is thinking). For religion to be justified, for it to be possible, the existence and some attributes of God must be known. This implies that the categories (I am not speaking of these particular determinations of them) are applicable to God also.

We arrive at the same conclusions if we consider the question from the point of view of morality. "Malgré le prestige de ses formules, la morale dite scientifique—ne peut fonder un code de devoirs, car *irrationelle* dans ses principes, elle est encore antiexpérimentale dans ses déterminations pratiques. Toute loi morale exprime une obligation.... Seulement, si la source de la loi est *immanente* à l'homme, si je suis—pour ma part d'humanité—législateur, je suis au dessus de la loi. Sans doute, je puis choisir une méthode de vie et me résoudre à la suivre; mais je puis dans les cas génants la modifier au gré de mes désirs: il n'y a donc là aucune obligation réelle."[1]

That the moral principle—identical with the principle of cognition, as this is identical with the principle of order in reality—is immanent in man, it is impossible to doubt. I can obey a precept which comes to me from without. But that my obedience may be a really moral action, I must recognise the goodness of the precept, I must obey the precept because and in so far as it is good. I must therefore prior to the precept (needless to say we are speaking of logical priority) be *capable* of such recognition. This means that a moral principle must be intrinsic and immanent in me.

Apart from this principle, the obedience could only be suggested to me by my interest. Here it is well to note how

[1] *Op. cit.*, p. 233.

interest also presupposes an intrinsic, immanent principle. Someone may say to me, "Do this, or I will break my stick over your back." But there is no prescription which can give me the aptitude for suffering in which lies the value of the threat, if I do not possess it. And the same may be said of the aptitude for moral valuation.

Is the moral principle, which is certainly immanent in us, "*divin* au sens propre du mot," or created? Let us suppose it created. Then what we call *justice* is such a fact, just as, for instance, Mont Blanc has in fact a certain form; it is a product of the creating will, not an element of the divine essence. And in consequence God is not just. He is not unjust either. The moral categories are not applicable to Him. A week and a tower are not equal, nor is one greater than the other—they cannot be compared. Similarly, God and man, in the case supposed, cannot be compared morally. Just and unjust are significant terms with respect to man, but devoid of meaning with respect to God. Can a God to whom we cannot attribute justice (and the same may be said of perfection, goodness, &c.) be the God of religion?

It will be answered, perhaps, that if God is not just in the human sense, He is, however, just in an infinitely higher sense, in an "eminent" sense. This box and all space are extended; space is, however, infinitely more extended than the box. We can understand that divine justice is infinitely higher than human—on condition, however, that between human and divine justice there is something in common, that the one is justice like the other. There may be a difference, and an infinite difference, between the manner in which justice is possessed by God and by man—I am not speaking of this. I ask what meaning do *you* attribute to the term justice when you apply it to God? Have this meaning and that which we all attribute to the same term when we apply it to ourselves, anything in common—yes or no? Yes? Then the category of justice is applicable also to God, and the moral principle is not created. No? Then God's justice has nothing of justice but the name.

In conclusion, a divine principle, uncreated and necessary, is immanent in the universe and in us. But does the existence of the principle imply the existence of the universe? Is the principle *only* immanent and implicit in the universe? This is

the problem which remains to be studied, which hitherto has not been studied as it ought, because it was wrongly believed that the doctrine of immanence implied the negation of the (necessarily transcendent) personality of God.

The principle, implicit in organised nature as an invariable law of transformation, implicit in the organisms as an instinct which realises an unforeseen end, becomes, with more or less clearness, explicit in the personal consciousness of each one of us. And it is the same always and everywhere; it is *reason*, at the same time *ours*, a constituent of each man, and universal.

To me it does not seem possible to exclude, on the basis of the knowledge which we have so far succeeded in gaining, that the principle requires and logically implies a personal consciousness of which all the sensible world would be the content (just as a small part of the sensible world constitutes the content of our consciousness). But as for the present we cannot exclude this, so for the present we cannot prove it either.

We find ourselves in a provisional situation, which naturally will not be permanent. Unless I am mistaken, the preceding discussions which present the problem under an aspect not absolutely new (I may mention Hermann Lotze), but not yet studied with the necessary diligence, indicate clearly the way to arrive at the goal.

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Printed by BALLANTYNE, HANSON & Co.
at Paul's Work, Edinburgh